

<223> Clone ID: jC-gmf102220067h06a1

<400> 4710

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gaagtgggaa gggtgagcat gaggaagacc gtcaccaagc aggtctcctc aagaagccca 180  
tggtacggcc cagaccgagt caagtacttg ggcccattct ctggcgagcc cccgtcctac 240  
ctaaccggtg agttcccagg cgactacggc tgggacactg ctgggctttc cgagaccca 300  
gaaaccttcg ccaagaaccg tgaactcgaa gtgatccact ccaggtgggc catgctcgga 360  
gccttgggct gcgtcttccc ggagttgctg acccgcaacg gggatgaagt cggagaagcc 420  
gcgtggttca aggccgggtc ccagatcttc agcgagggtg ggctcgacta cttgggcaac 480  
ccaagcctga tccacgc 497

<210> 4711

<211> 239

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220067h07a1

<400> 4711

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aagaggttgg agatcagagt gttgtacacc agatccaatt gccttcacag gatgcgctcc 120  
cggaggatta ctctctacaa tgggtaccaca aaagagatgg ttactggcc aactgtaat 180  
cttttttggg aagcattctc ctcttatgtg catgctcttt ggtaaaatcc agttcagag 239

<210> 4712

<211> 602

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220067h08a1

<400> 4712

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tgggaagtca actaccactg gtcatttgat ctacaagctt ggaggtattg acaagcgtgt 180  
 gattgagagg ttcgagaagg aggctgctga gatgaacaag aggtcattca agtatgcctg 240  
 ggtgcttgac aagctcaagg ctgagcgcgga aagaggaatt accattgata ttgctttgtg 300  
 gaagtttgaa accaccaagt actactgcac agtcatcgat gcccccgga atcgtgactn 360  
 tatcaagaac atgattactg gtaccttcca ggcttattgt gctgtcctta tcattgactc 420  
 caccactggt ggttttgaag ctgggtatttc tacagatgga cagactcgtg agcatgctct 480  
 tcttgctttc acccttggtg tgaagcagat gatctgctgc tgtaacaaga tggatgccac 540  
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 ga 602

<210> 4713  
 <211> 617  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220067h09a1  
 <400> 4713

gacgaatgca ttcgtcaaag tttagctcta ctgactcatg tgaccttctc atatgtgatg 60  
 aggctcacag actgaaaaat gatcagacga taacaaaccg ggcgtttgca ggggagagct 120  
 gccaatgccc ggtttgttat cgtctgctaa cgttgaattt tggtgcagga acttccttgc 180  
 acaatgactt agaagaattc tgtgcaatgg ttaactttac taatcctgga atattgggtg 240  
 atattgcaca ttttcgacgt tactatgagg caccaattat ttgtggaaga gaacctgctg 300  
 cactgcgga agagaagaag ctaggtgctg aacagtctgc tgaattaagt gtcaatgtta 360  
 accggttcat attaagaagg actaatgcat tgttatcaaa tcacttacca cctaagatag 420  
 ttgaagttgt ttgctgcaag ttgactccac tgcagtcaga actatataaa cattttatac 480  
 aatccatata tgtaagcgg gcaattactg tagaactgaa gcaatcaaag attttggctct 540  
 acataacagc tctcaaaagt tgtgcaatca ttccaagctt attctttgat accatacgaa 600  
 gtgggagtcc aggaact 617

<210> 4714  
 <211> 348

<212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220067h10a1  
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 aagaagaaac agacactttt aaaagggggc tgctgtttca tattcacctc gcgtagaact 120  
 agaacctgtg ctgtacactg ttttcacttg ctttgccttc tgtcttattt tagtataaaa 180  
 gcgtctatct gctatcagcc atatcacgga tctcttcctc cgttcctggt ggctgtcact 240  
 cccaactata tttatcatat cacttcctca ttatatgacg atcatcaaag cctttgcttt 300  
 atcaacgagt tatatgcatt ctatgctcag ataaaataga acaacaaa 348

<210> 4715  
 <211> 554  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220067h11a1  
 <400> 4715  
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 atggccactt gtgttgatgc ctcaaccct ctttctcgga aacctaacgg gtcccaatcc 120  
 gatgatcatt cctttaatta catgaaattc tgccgacct ctttctctga tcgcggtccc 180  
 tgcattgcca tttgcaagaa tcgcgacacc gccttcacac gtgtggagga gtttgacaca 240  
 cgtgtggaga atcatgttga ggttgacgtt gtagagggtg ttgatctttg gttgaagatt 300  
 caagaggaag caagggttaga tgttgatcaa gaaccaatct tatccagcta ctatttcagt 360  
 tccattttgt ctcaaaaatc cttggagagt gccttgcca accacctctc cacaaatttg 420  
 agcagcttga gccttccaag cagcaccctt tatgaccttt tcatgggtgt ttttgccgat 480  
 gataatgaca tcataggtgc tgtcaaagat gatttgatag ctgttaagga gagggaccct 540  
 gcttgcataa gtat 554

<210> 4716  
 <211> 130  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220067h12a1

<400> 4716

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atggacactg gcgtggatgc ctcagcacca ctctgtagga aacctaacgg gtcccaatcc 120  
gatcatcatt 130

<210> 4717

<211> 513

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068a01a1

<400> 4717

ccagcagcaa catttgcgca aatcgaaatt gattctctgc cacttaacct aaaatggaaa 60  
tctttccgat tcccgcgaa tcctacactc tcggcttcat cggcgccgga aaaatggccg 120  
agtccattgc ccgaggcgcc gtccgctccg gcgtcctgcc gccttctcgc attcggaccg 180  
ccgtccactt caacctcgcc cgccgtggcg ccttcgagtc cttcggcgtc accgttctcc 240  
cttcaaacga cgacgtcggt cgcgaaagcg acgtcgtcgt tttgtcggtc aaacctcaat 300  
tagtgaaaga cgtggtgtcg aaattgacgc cgcttttgac gaagaacaag cttttggttt 360  
cggtcgctgc tggtagcaaa ttgaaagatc ttcaggaatg ggctgggaac gacagattta 420  
taagagtgat gcctaatacc ccagcagctg gtggccaggc agcatttgta atgaagctgg 480  
ggggatctgc aacggaagaa gatgaaatat tat 513

<210> 4718

<211> 314

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068a01d1

<400> 4718

agtggccaag tgggtttatt ttatTTTTac tggtagtact cttcttttgc aaggaaactt 60  
caagttctca tatagactcg gatgcattca tgatgctagc tcgaaaagac tgttatggcc 120  
aaacattctt gtttactcct ctcaaagaag agccccaagt tctcataata gtgactgaaa 180



attcgaccga aatcagattt tgggtctaaaa aaaaaagtag aatcctaatac tcttgattca 240  
 ggaaagctct cgggtgcgct tagcagcagc aacaacagca ttcacagtg ttccacggaa 300  
 cccaccattt tcta 314

<210> 4719  
 <211> 430  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068a02a1

<400> 4719

aatccttggtg caccgtaagg gttgtgaagc aggacagagaa gagccatggt gcacgtttcc 60  
 ttctaccgaa actatgggaa aaccttcaag aagcctcgtc gtccgtacga gaaggagcgt 120  
 ttggacgccg agttgaagct ggtcgggtgag tacggacttc gctgcaagag ggagttgtgg 180  
 agggttcagt acgctctcag cgcacatccgt aacaacgcca gaaatctttt gaccctcgac 240  
 gagaagaacc cgcgccttat cttcgaggga gaagcccttc tccgaagaat gttccgttac 300  
 ggacttctcg atgagactca gaacaagctt gattacgtgt tggctctcac cgtcgagaac 360  
 tttctcgaac gccgcctcca aaccctttgt ttttaagtctg gcatggccaa gtccatccac 420  
 cacgccagag 430

<210> 4720  
 <211> 457  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068a02d1

<400> 4720

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 agttcaaaac catgatatct caggcacagc ttacctcaa aacaagaaac aaggatggca 120  
 aaattataac aagtcagacc atttcaaaaa tctaaaatgt ctaccaacac agataatata 180  
 aaaaaataa caaccgcaag gcctaaatat cagtagccat taataattta atcttcgtcc 240  
 tctcatctc catctccacc agcagccttc ttagcagcag ccctttgggtt ctttctcttc 300  
 acacgtcctg gacgaccacc accaagtgga ctgggtcagtg agaagtcaat gtgcttctgc 360

gaatcaaccc taaccatgaa tgatgggatg ttcaccacct gtctcccaac cctgatgtgc 420  
 ctctgcctga tgaggactct ggcgtggtgg atggact 457

<210> 4721  
 <211> 368  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068a03a1

<400> 4721

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 cgcagagact tatatatgca ggtaaacagc ttgctgatga ccaaacaggt taagagtaca 120  
 acattggggg tggctctgta ctttacttgg tgcttgcatg gggggggggg acttaatagt 180  
 ggagatgcca tatcagaacc caaaggcctg gaaggagct ttatttctgg cccggctttt 240  
 ttgaagacat aatggttctt taatgggctg ggtttttgta attgtggcta ctattggtgg 300  
 tcaggaactc agtatctttt tagtggtatg ctatttaaaa ccctaagggtg gcctttataa 360  
 tgaatttc 368

<210> 4722  
 <211> 314  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068a03d1

<400> 4722

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 cagattatga ccctaaacca aggcataaaa tgaatggtgc accatatcca ttgttaacgc 120  
 ccacttaggg tactaaataa gatacaacta cataggtacc gaattactgc cccccagggtg 180  
 tttccacatt taccaaaacc aggcctgctc atgaaccatg atggattcct agatacgggtg 240  
 caggaatgaa ggttccttgt aagcctcagg gttccgatat ggcctactca ctagttagtg 300  
 ccaccccttg atgc 314

<210> 4723  
 <211> 346

<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068a04a1

<400> 4723

cactgaggac aagagaagtc cattcactca gcaatccaat attaggaatg atgagtacta 60  
tggaagaaa gtggcaggtt ccaacaagga cccttttgtg gaatctgagg tagctgttag 120  
tgatgatgtg atggaaccaa gcttgcacaa gtatgtgaca gtgaaaagag gtggtggtgt 180  
agtagtagaa gacatggagg accaagagtc ttcaggaagc aacagcttca ctgtgagtag 240  
tatcagtggc caacattact gggggaacaa cattttttgt tcttcatcat gggaaccaa 300  
ttcttgtgac tccaccgatt ggctggactt tttcaaaatt gagctt 346

<210> 4724  
<211> 537  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220068a04d1

<400> 4724

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aacttgaatt ggccttgctg aaacaagaaa cagttgcaag tactcaactc caaacagaag 120  
aactgtcaac acctcattga acatctaaca tacatcagca aaaggtgaaa attcatggta 180  
tcatgatatc atcatcatca tcacacacac acccctttat tggaaccaag cctgccacgt 240  
acaatgccac cgctatgttc atgatcacac tctctccttc tgctgttcaa acccttgttc 300  
ttcttcttgg cttcagatga caaactacat cccaatccta aggggtgttt ctgagcctac 360  
tcctctctgg agtcaatct tgaagaagtc cagcaatcgg tggagtcagc agaatttggc 420  
tcccatgatg aagaacatga catgctgttg cccagtgat gttggccact gctactactc 480  
acagtgaagc tgttgcttcc tgaagactct aggcctnca tggcttctac tactaca 537

<210> 4725  
<211> 590  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068a05a1

<400> 4725

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tactcatggt ggcattgctc atcgtgcatg ttcttcgttc actacaagca agaattgaga 120  
gaaaatcaaa ctacaattct ccaccaggac cctctcttct caccatcatt agaaactcta 180  
aacaactcta taaaaagcca cagcagacaa tggccaagct tgccaaaacc tatggcccca 240  
taatgcgttt caccataggg caatcaacca ccatagtaat ctctcaata gaagccacc 300  
aagaggttct ccaaaccat gactcattat tctcggacag acaaaccac gacatcaca 360  
cctcgtacaa ccacaaccgt tacagcttgg tttttctccc tgtctcacc ctctggcaag 420  
aactaagaaa aatctgccac ggaaacttgt tttcggcaaa gacccttgac gcatgcacgg 480  
accttaagcg catgaaaatg aaagagcttc ttaccgatat ccgccaaga agcctcaacg 540  
gcgaagtggg ggacattgga agagcagccc ttatggcatg cattaacttt 590

<210> 4726

<211> 466

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068a05d1

<400> 4726

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aagaaagaca ggaagaccct gttggactaa taggttgggt aaaggaaact gtattcacac 120  
tcccataggt aggttcatcc taatgggaac aacgacaaa ttttaaggtg cactaactga 180  
gccttttagct ataacttttt ttaccaatgc ttgaaggcag aggctgagat ctcaaatgat 240  
cagtgcccaa gtcgatgcac ctagacaagt caagccccct ttgggagaaa caaccgtgga 300  
actaaagttg cataaagtac aaagggaaca acgagaaaaa tggatcatcat tagagcgagt 360  
gttacaagaa cggaacaggc atatcgtacg tgcaaggagc tttgaaactg cctatggcta 420  
tggcataaac ctatgcgccc aaaacgggga ttaacatatg aactac 466

<210> 4727

<211> 571

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220068a06a1

<400> 4727

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tgaaaacaac ttccccctc agaagcaaga cactcagcct ggcaaagagt acctcatgaa 120  
tccaccaccc caatacaaca gctcccaata caagccatca aataaacttc agggaaagat 180  
agctgtagta accgggggtg attctggaat tggacgagcc gtgtgcaact tgttttcatt 240  
agaaggtgct actgtgatct tcacctacgt gaaggggcaa gaggacaggg acgcgagtga 300  
cacgcttgag attataaaaa aagctaagac tgaagatgct aaagatccat tggctatacc 360  
tgttgacgtg ggttatgaag agaattgcaa gaaagtgggtg gacgaggtta tcaacgctta 420  
tggccgcatt gacattctgg tcaacaatgc agctgagcag tacgagagtg attcccttga 480  
agatattgat gatgcaagac tcgagagggt ctcagaact aatatatttt cccatttctt 540  
catgaacaaa catgctcttg agcacatgaa g 571

<210> 4728

<211> 411

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220068a06d1

<400> 4728

ggctcatata aaagaccgtc atgtaaaaga ttagacctgg cgtatcatct taacagcatt 60  
atccaggaag ctcaactcatg gggcgagtct acctatgac aaggtacgat cgcttgcaaa 120  
ggctaggccc ttacacatga cttttcagct ggcataatgc ggaatctcag actctgctgc 180  
tacataaaga gcgcttctca gtgtgggctt ctttcctact actacattct actactatcc 240  
acttacacag aactgcttc agactaggac ggctcctgat ttgatcccag tcatgcccac 300  
gaatgcgaga ctcatgctga tagctggatg ggacttactc ttacactgt agagcattct 360  
atctacggac agatcctacc cctggagggg attgtgacag ccatctgcta g 411

<210> 4729

<211> 511

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068a07a1

<400> 4729

gaaagaatga gtgattggca aaagcgtctt gtctctcagc tagggaaaaa gatggttgaa 60  
atgactggag actatactcc tgatttgacg gctctcttgt cggccaatat catcatatct 120  
actcctgaaa agtgggatgg aataagtcgt aattggcata gccgtagcta tgtcacaaaag 180  
gttggactta tgatattgga tgagattcac ttattggggg ctgatcgtgg acccattctt 240  
gaggttattg tttctaggat gagatacata tcatcccaa cagaacgtgc agtacggttt 300  
gtaggtcttt ctacagctct ggctaatact ggtgatctag ctgattgggt aggcgttgag 360  
gaaattggac tcttcaattt caagccaagt gtgaggcctg taccctgga agttcatatt 420  
cagggttatc ctggaaaata ttactgccca aggatgaata gcatgaataa accagcatat 480  
gcttgcatat gcacacattc acctgcaaaa c 511

<210> 4730

<211> 537

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068a07d1

<400> 4730

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ctgtaaacct ttatacttac aaatggcgac acgacttgga aaataaataa agaaaatcta 120  
aaaacaagat cattatgatt acctataaaa caattaaatg caagagattg caaatcctat 180  
ggatatacat attgactttt tctcaagtta aaaaaaaac attttttggg acaacctggg 240  
cagccccaac cctcttcaag aaatcttacg tttacgttgt atgtacaatg gcactgacca 300  
atgggtgtctc cactacttaa catacatcaa gttcttcaat ggagtgttct tgttcaaatac 360  
caatgtaaca atcggagact aaaatcagtt ttacgcctg aagattagct ggagtcagag 420  
gcaacttcat tgaggtaact aagtgatctg aaacagaaac tcttttcaaa gcatatagct 480  
cagacgtaga ggtattacca agaaccaacc accattgttc cctctttatc tittgaa 537

<210> 4731

<211> 485  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068a08a1

<400> 4731

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ttggatatta gagtgtgtaa gaaagagaag agagagaaat gggaagggga agagtggagt 120  
tgaagagaat tgagaacaag atcaacaggc aagtgcctt tgcaaaacga aggaacgggc 180  
ttttgaagaa agcttacgag ctttccgttc tttgtgatgc cgagggtgct ctcacatct 240  
tctccaatag aggaaaactg tacgagttct gcagcagttc aagcatgctc aaaacgctag 300  
agaggtacca gaaatgtaac tatggtgcgc ctgaggctaa tgtgtctaca cggaagcct 360  
tggagttaag cagtcaacag gagtacttga agctgaaggc acgttatgag gccctacaac 420  
gggtccagag gaaccttatg ggagaagatc ttggtcctta agcagcaaag agctcgagtc 480  
tcttg 485

<210> 4732  
<211> 451  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068a08d1

<400> 4732

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aaacagcctc cgaagcatac atgtgcacat gaatgcaaga gctagtacgc acagacaaca 120  
ctgcttaact ttgttcctac tctatactcg ggagacactt acagcttcat tacatccagg 180  
gccattatct tgcttctaact tcttgctgct gcaaataaca ttggaacggc taatgtgctg 240  
ttgcagagga tcttatgcag gaaacgcaga ctatcgtaac catactgcca tgacattgct 300  
catgcttgac cctgctgaca ccactgatac tgcatcaggc tgatacccaa tgatgtaacg 360  
acggctgaca ctgcattcgc tgaaagaggt cttcaccag agttagagct ggatgcctga 420  
catattccat cgcttgaact tcggcattca g 451

<210> 4733

<211> 601  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220068a09a1

<400> 4733

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aagttgcaaa gcaaagaata gaagacgaag ggtatagagc tcataacaat ccatttggtc 120  
ttaatttggt tctgttttct tcattctgtc agccatatat ggcttccttg gcgacgggtc 180  
aagatgaacg ttgcgttcag agaagctact ggattgaaca taccacagat ttgtccgtag 240  
agtcaatgat gtcgattcc aacgcctctg atctcgacaa ggaagaaaga cccgaagttt 300  
tgtccctact accagcatat gaaggaaaat cagttgtaga acttggagca ggtattggaa 360  
gattcacagg tgaattggcc aagaaagctg gccagttgct tgctgtggat ttcattgaga 420  
gtgctataaa gaagaatgaa agcattaatg gacaccacaa gaatgtcaag ttcattgtgtg 480  
ctgatgtcac ttctncaact tgcataattc tgaagatcag ttgatctgat ngctctcaat 540  
ggttactcat gtatctttca gataaagagg ttgagaattt agctgncagg atgatcaaat 600  
g 601

<210> 4734  
<211> 463  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068a09d1

<400> 4734

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tttgtggata tggaaaattt gttgatcaca ggatgatagg ggtgttcaga gtgttcgaag 120  
agggggcccc caatatcata aggatattct actatatgag agagcagggtg gaaaggggtt 180  
ggagcacagg aggactagaa caaccaagga aataagagaa aaaaaaggga caaaaacctg 240  
gccagaaagt actggatgaa gaacgtggaa ctggggggagg agacatgtac atggcagaaa 300  
attttgaaga agaagatggt ggcatcgacc gctacataaa cataatttct gttgccattg 360  
aacgcgcat tggactcaga tgctgcgcag aatttgagtg tgccgattgc actaaccgaa 420



caagggctgt gaaaacataa gatgtaatgt aggggcggga cac

463

<210> 4735  
<211> 613  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220068a10a1  
  
<400> 4735

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tgaaaaattg gagaagggtg taaacgatgg aaattattat ggagctcagc aaatgtacaa 120  
atccgttagt gccagatatg tttctgctca gaggtactgt gaagcattag atatcctaca 180  
ttcaggagcg tgcattcaat tgtctcatgg gcaggttacc tgtggagcag agctagctct 240  
attgtttgtg gagacattag ggaaagggaa aattccttac aatgaggaaa ttcttgaacg 300  
tctcgacaaa atttacaat catttctctg ggtttcattg ccacaaaacc tatgggatgt 360  
cgatgacatg cagcagcttt ctgaaaacat tggaagtga aagacacgtg ttgagggtg 420  
ctcctcattc ttaaaagctg ctatcaagtg gtctgccgga aatggagtaa ataagaatgg 480  
atctccagag ctgcacatca tgctagctga gtacatattt tctgaaagtc ctgagggtgga 540  
tatggctaaa gtgacacatc attttgtgag aggaaataat ccaaagaagt tgcttctact 600  
ctaggagttt ttg 613

<210> 4736  
<211> 450  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220068a10d1  
  
<400> 4736

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ctctatcatt aacaaaaaag aaaagaaaaa ttatttgaac gttctgttga agttgctggt 120  
ctatctggta gtgtctccat aatgattggc attactcagc tcccatcaac ttggatatat 180  
ctccaaacat tcccatgggg gtccttcgct gtactccaaa gaacctttcc ggaatatcat 240  
ctagcatctt attgaacgca ggctccctgt caatacttgg cttaaaattt gctctcaaca 300

tactaaaaag aggcaaagca tctttttcca acgtttgcaa aagatatgcg ataaattgca 360  
tcaactctgt cttaggaaat gcaaccttag cccgattcag ttgcttcttt atctcttcca 420  
ttaggatggt cgcacctttc aaattacctg 450

<210> 4737  
<211> 356  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068a11a1

<400> 4737

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agggaagcag atagcatctc ccttgctgat gatgtcactt gattggtggt ttgccggggtc 180  
tggtggttga ctggagtttg ttgcatctga tttcagttca tgatgtggga attcccataa 240  
ttttgttctg tggttttatg tgctctctat gttagtgttt ggggttttaa aatgtgtcac 300  
ggattatggt gtaagttctc tccatgtttc ttaattaaa aagtatttaa ttcttt 356

<210> 4738  
<211> 357  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068a11d1

<400> 4738

aaagaattaa gatacttttt aattaaagaa acatggatag aacttacacc ataattggtg 60  
acacatttta aaaccccaaa cactaacata gggagctcat tagactacac ggcaaaatta 120  
tggaattcc cacatcttga acggaaattg aatgcggcaa actccaggga accaccaaac 180  
ccggctaaac acctgtcaag tgacatcatc agcgaggag atgctatttg cttacctgga 240  
tatatgcatt tgctccataa tggaattgag acaatctttg actaagcagc cagaactatg 300  
gtcacgatga gaagcacaat cccaaaaatc gccagaagct agcatgtcaa agaggaa 357

<210> 4739  
<211> 340

<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068a12a1

<400> 4739

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gaggacatct ctaccacaaa aatcgcccat cacgcagggc aacctggaag agaaacaata 120  
ccctctccct tcgtcgctac cggtgatttt gttgcagtta tcgtatgttg cttcattttc 180  
tgagtatttg gagggaaaac gtcagttttg gatccctgaa tcatgccttt tttccccgat 240  
aatgtcttta gtactaaaac agcagagatt aatgatgtaa gctttctact atgtgccggg 300  
attgttttta tttattttgt tcgacttttt tcgttgtggc 340

<210> 4740  
<211> 330  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068a12d1

<400> 4740

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ttacatcatt aatctctgct gggttagtac taaagacatt atcggggaaa aaaggcatga 120  
ttcagggatc caaaactgac gattttcctc caaatactca gaaaatgaag caacatacga 180  
taactgcaac aaaatcaacg gtagcgacga agggagaggg tattggttct cttccaggtt 240  
gccctgcgtg atggacgatt tttggggtag agatgtcctt tgccacgtaa acccctattg 300  
gttttcccag cagaagtga ggcacgcctt 330

<210> 4741  
<211> 471  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068b01a1

<400> 4741

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agagaaaaaa ccggagcaag agtccaaaga ggaagttgct gctgctgctg ctgctccgcc 120

accgccaccg acaccgtcac cgtccgagat tgtgctcaaa gtgttcatgc attgcgaggg 180  
 ttgcgcccgc aagggttcgtc gctccctcaa aggattccca ggtgtcgacg atgttgtcac 240  
 cgattgcaaa tctcacaagg tggtcgttaa gggagagaaa gcggatccgc tcaaggtttt 300  
 ggagagaata cagaggaaga gtcacagaca ggtcgagctt ctttctccga tcccgaacc 360  
 tcaagaggag aagaaggtcc aagaggaaga gaagcccacg cccaaccccg aagagaagaa 420  
 agaagagcct cagattgtga cggttctgaa agttcacatg cattgcgaag c 471

<210> 4742  
 <211> 354  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068b01d1

<400> 4742

aaaaagacta aaataaaatt ttttcattgt caaaaaaatt aaaccattt ttgatctta 60  
 ttttggccca tcagggggcc cctcccaaa gtactattga ggctgggggt tttaaagggg 120  
 caaccgttat tgtgcttaaa gacgggcca aaaagtgtt ccaatttttg ttgcttttgc 180  
 ataccttggc cttaaccgt cgggggtacc gcggaatggg cctcatgttt tttccccccc 240  
 caagcttcaa aatttttccc caatgcccac atatccggg gcccttagt tttgacctca 300  
 tgacaatgct ggcatttggg tgcttacagt tgaccattg ggggggggtt gaat 354

<210> 4743  
 <211> 364  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068b02a1

<400> 4743

agaaaaggat gatcgtgtcg ttatcaaaga tccaaccct aacttgtttt ttgctagtca 60  
 ggtaattaat aatgcttgtg ctaccaagc gatcttgtcc attcttatga attcaccaga 120  
 tattgatatt ggtccagagc tgacgaaatt gaaagaattt accaagaatt tccctcctga 180  
 gctcaaaggt ttagccatca ataacagtga ggccatacgt acagcccata atagctttgc 240  
 caggccagaa ccttttgttc ctgaagagca aaagggttgc agcaaaaatg atgatgttta 300

ccatttcata agctatctac ctgttgatgg ggtactatat gagcttgatg gattaaagga 360  
gggt 364

<210> 4744  
<211> 398  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068b02d1

<400> 4744

attaaagaat tcattcatta acagattaca tacgggctcc aaatcttaca ccaaggaatc 60  
tgatgaatat tttgccctga atatagagtc ttacagggcc ggtggcatca aatgctggac 120  
taatatcgct taccacactg catagtaaca ctgcttgaaa tcgaccacga acctgatgac 180  
gtaccagat gactagggat attaattctt gatcagtgat ctaatacact ctttactttc 240  
aactgtgtg aaccatgcga gaggaagtgc ttgaactgct aaaaaggcca tatgctgtgc 300  
agcacattta ttatgtatta ctgtaatgat gcccttccga gaagactcag acttttagcc 360  
agactacatt gactggcact tttattcatc ctatcgat 398

<210> 4745  
<211> 91  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068b03a1

<400> 4745

gtcacgtgtg gttgtacgat atttattgcc aaaaccgttt ccattttggc acaagggtta 60  
aaagataaag gcgactatgg tggttatgca c 91

<210> 4746  
<211> 409  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068b03d1

<400> 4746

gagtaagtaa caatgacatg taacaaagat ggcacaataa cacagatatt cccatagaga 60

ttattcttct acagattctc atccacacta aacaaacggt cttatctggg gaatcggcta 120  
 ctagaagacc aaccgaacga tgctaacatt ggaagagccc aagcgcgag cgcttttgaa 180  
 aattttgagg actgagatcc aattgctgct gggcttctat atgaacctct aaaatctcag 240  
 ggatcctctg tttgagataa ttagcgactc tggcaaggac agtggaacgc ttgtgccaaa 300  
 accgaccact aaggctaatt ttcacaaaag gcccatccaa gtcagctagt tcaaccactc 360  
 ctgtcatgcc aacagagggtg tcaaagattt gaccagctc ctttcgagc 409

<210> 4747  
 <211> 510  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068b04a1

<400> 4747

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 aatctggtct tgcaaaatca tgtctccaaa atattaaaga ctacatgggtt gagaagcttg 120  
 gcatacacc taacaaaatt gatgacttgt ccaacctcct ttacaagaat tatggaacaa 180  
 ctatggctgg tctaaggga attggatatg actttgacta tgatgaatat cacagttttg 240  
 ttcattggaag attaccttat gagaacctaa aaccagacca agttctgagg aacctgttgc 300  
 tgagcctacc ctatagaaaa cttatcttca caaacgcaga caaagttcac gcggcgaaag 360  
 cgcttaacag gcttggatta gaagactgct ttgaaggaat catatgcttt gagaccctta 420  
 atcccatcca caagagcatt gtttctgatg atgaagatga cattgagttt gtaggttcaa 480  
 gaaccaccaa tccaaccacc acttgtaatg 510

<210> 4748  
 <211> 505  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068b04d1

<400> 4748

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 aatatcgaag gggctaaatt aatatgatgc acataataat catctgaagc tgcgactgac 120

gtgtccacag ctagctttgc agggatatgca gctcctggat gtactataac gctcccatag 180  
tccaggcgca gactacctaa ggtcgagaat gcttttcaaa gcataagctg caccttatac 240  
atcactgtga tgtgccaacc agcacagtgt gaagccccac acgtttttaca gcttgtatgt 300  
tgcggttact gtgctctgcg aacatagttc tctgctgcct aagattggct atattgaggg 360  
ccagctcata ggcattatct gatggctagc acactatagg tgtctttggc gcgactgcac 420  
tgggattgac ctgacataat gccctaagat gtcaaagatt tgagaggtgc ccgaaccatt 480  
acatgtggac gatggattgg aggct 505

<210> 4749  
<211> 435  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068b05a1

<400> 4749

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gcggtcgtgg acgcggcggc gacaggggac gagggcggcg cagggcagga gggcgccgcg 120  
acgaggagga gaagtgggtc ccagtgcga agctggggcg cctggtgaag gaggggaaaa 180  
ttccgagcct ggagcagatc tacctacact cgctcccaat caaggagcac caaatcattg 240  
acaccctcgt ggggcccacc ctgaaggacg aggtgatgaa gatcatgccc gtccagaagc 300  
agaccgcgc cggtcagcga acccgcttca aggccttcgt ggtggtcggc gacaacaacg 360  
gccacgtcgg tctcggagtg aagtgcagca aggaagtcgc caccgccata cgcggcgcca 420  
tcattctcgc aaagc 435

<210> 4750  
<211> 511  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068b05d1

<400> 4750

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tatataatat gtccttcaat agaaaatgaa ataacaaaag gtagcaaac atataattac 120

tgggtcctag catgcttaag acgaggcaca atcatccgat aacatcaaaa ctgctgctgc 180  
 ttctgctaac tcaagccttc accctttcct cctcgaggat aagggccttc cctgttggct 240  
 ttgccaatag atcagagtac tcttggatg gtgatttga gaaccgagtc tccttcaga 300  
 attcaggtgt tagaaaaccg taggttttca gcaaacagtc aaaagtagcc ttgacgaaat 360  
 ttccgagggt tttggtggaa cccctggagg aagtgaagac gtcacgatt ccagcgaact 420  
 gtaagacctt cttggggacc ctagcggcga cgattccgga cccacgagg gctgggacca 480  
 tgccgactgt gacggagcca cactttccgg t 511

<210> 4751  
 <211> 550  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068b06a1

<400> 4751

aatcaagtca acccctcttt caatttcaac cctatatctg ctctcttttt cttcatcatt 60  
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 gagctcaagg atttgcagaa ggaccctcct acatcctgca gcgcagggtcc cgtggcggag 180  
 gatatgtttc actggcaggc aacaatcatg ggacctctg atagcccata tacagggtggc 240  
 gtattcctag tttcaattca ttttctcct gactatccat tcaaaccacc aaaggttgca 300  
 tttaggacta aggtattcca cccaaacatc aatagtaatg gaagtatatg ccttgacatt 360  
 ctaaaagaac aatggagccc agcactaacc atttctaagg tccttttgtc catttgctca 420  
 ttgttgacgg atcccaaccc tgatgacctg cttgtgcctg aaattgcca catgtacaag 480  
 gctgacaagg ctaagtatga agccactgct cgtagctgga cacagaagta tgccatggga 540  
 taatcatgct 550

<210> 4752  
 <211> 395  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068b06d1

<400> 4752



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 gggacatttt gcaacatatt ttttcctgcc cgatgttttg caaaggaata ttccccagtg 120  
 atcattaatt cccttaccgt ggttgatttc cactggccaa aagaaggcct atcactcatt 180  
 aaagggatat ccaggttttt aataaattat gattgggcct tttccgtgcg cctcttaagg 240  
 gggcccttga caatcccagg ggatactttg ggggccaggt acaaacagtg ggttcatact 300  
 gagccttggt agccttgac atgggggcaa tatttggcac aagcggggaa ttagggtttg 360  
 ggacgcccaa caaggagcca aaggcccaa ggccc 395

<210> 4753  
 <211> 538  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068b07a1

<400> 4753

ggtgccttag gttcttattt gccaaatgct tcatggcaca ataggaaaat ccaaaaagaa 60  
 tataattttt tgaggtttcg gtggccaagt ttgaaccacc attacaaaag cattgaagga 120  
 ggggtgtacat gtaaaaaatg taatataaaa tttgttgtga aagcgacctc tgaaaaatct 180  
 tttgagtctg aacctcaagc ttttgatcca aaaagcattt tggactctgt caagaattcc 240  
 ttggatgctt tctacaggtt ttccagacct cacacagtta ttggcacagc attaagcata 300  
 atttctgtgt ccctccttgc tgttgagaaa atatcagata tatctccatt attttttact 360  
 ggtgtgttgg aggctgtggt tgctgccctg tttatgaata tttatattgt tggtttgaat 420  
 caattgtctg atgttgaaat agacaagata aacaagccgt atcttccatt agcatctggg 480  
 gaatattcct ttgaaactgg tgteactatt ggttgattct ttttcaattc tgagtttt 538

<210> 4754  
 <211> 526  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068b07d1

<400> 4754

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cgactccaag cgggctgtg acaaaggcag caccatttaa acaaaactaa ttctcaagtc 120  
aatattgccg ctgcatcctc atctaacaaa aggaatgagt aagtattctg cataaaatag 180  
cttccaaata aacatataga aggatgttat cgaagctttg cttttcaaat ctacagattt 240  
ggcatgaaac cagagaattg aagccagaac agcgtgtccc aaacccgtga caattttgct 300  
ccaaagacaa ggagatgcag ttcccaccag gagggcgact ccataagcta tttcaagaag 360  
gataacacaa gtccagaata cgggcttctg acctaaacgc actgaaaaag attggatgcc 420  
aaatacttta tctccttcaa tgtcaggtat atccttaaac agtgctataa ctacagagaa 480  
gaagctcatg aatgcagtag caaaaatcaa tgatcttgaa aagaca 526

<210> 4755  
<211> 586  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068b08a1

<400> 4755

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actcgttcga ttcgctgaac tctgaagtta atttttgttg cgaaaatgtc ggtggcgaag 120  
aagttgatta gatgcgtcat ccttgacttg gacggcacgc tgctcaacac agatggcatc 180  
gtaggcaacg ttttgaaggt tatgttaggt aaatacggaa aggaatggga cggaagagaa 240  
gctcagaaga taattggaac gacgccgttt gagggcgctg ctgcggttgt gcaagattat 300  
caacttcctt gtcgcccat tgaattcctc tccgaaattt cgccactctt ctctgaccag 360  
tggtgcaaca ttaaagcact tcctggtgct aatagggttg ttaaacattt gaagagtcac 420  
ggagttccta tggccttggc gtcaaactct ccaagggaaa gcatcgaagc caaaatatcc 480  
tatcatgatg gatggaagaa ttctttctct gctataattg gtggagatga agtacgaaca 540  
gggaaaccct ttcccctgaa tatecttgag ctgctaggag gtaaca 586

<210> 4756  
<211> 506  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068b08d1

<400> 4756

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actaatatgc aaactgatgt ccagtagaat aactggatta tgcccttaca acgatcaaca 120  
ccaaggctct attcgacctg aagctaagcg gatgataaga ttgttctacg agcttttcga 180  
atacgaatca ttcttaaaac ttgaatataa cgggaggatc aagagcccta tgggcatctg 240  
ttcgatttca tgaatttgag ctaccaccct ttgaagggat gaaaaattga cctggggacg 300  
tttghtaacca actatatcaa gccgactttc ttacccatag aaatgtcgat taaagccatg 360  
gagtaaccat ggttctatag cccaaaattt gttgtagaaa tatggatgcc aaccaatgat 420  
catcaccatt ttaaaagcac ctcttgccgc catccagctc atccggaata aacacttgca 480  
cgatactgtg aaaggatatc tgaata 506

<210> 4757

<211> 517

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068b09a1

<400> 4757

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ttgtattttc tgcgataatt ttccattggg tggaagaaag tctcaacctt tattcgaaag 120  
agcaaggatc tgagttgagt tgagtgatca tgtgtggtgg tgcgattatc tccgacttca 180  
taccggcagg tcccgccagc ggggcgcggc gcgtgaccgc cgacatcctg tggccgagtt 240  
tgaggaagcg cttctcgaag ccgctgctgg acgatgattt cgaggctggg ttcagagaat 300  
tcaaggatga ttcggaaatc gaggatgttg atgacgagga cgatgaagac gaggaggagt 360  
tgaagaagaa gccctttggg ttctctcgct ccagcaacaa ggctgcttct aagcctctct 420  
ctcgtggatc agcaactgtg gaatcaaagg ggcaagctga gaagtgtgcc aagagaaaga 480  
ggaagaacca gtatcgtgga atccgtcagc gtccatg 517

<210> 4758

<211> 527

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220068b09d1

<400> 4758

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agttcacaaa aggataccct ataataaaaa cctatatata gtcctatact actgcattag 120  
ctacaagata aaataaactc cacataagct ttaagcaggt ttcttgctgt ggactccatc 180  
accaacatca cgatcacatc tcctgaaagc aaatacaaaa atcaaaatga taataatata 240  
catatacatt cagaaacatg cagggatgca aaaaaataat aataataaaa ctagaagcag 300  
aatgaaaatt acgaacttgt agctttatct acataaaagg ggagataaag ggtgttcaga 360  
agactcctgc catggaaggc aggtcgtcca agcttcaaag gttcataggg tttccggcgg 420  
cgtaatgagt tgcgtctccg ccgagcaaag acgccaatgt agcatcagcc caggctttat 480  
caagaaaaga aggggtctca aagaacttga gctgggattc aatgtct 527

<210> 4759

<211> 563

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220068b10a1

<400> 4759

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tgtttttctt ctcttcgggt tgaatcaatg ggtgcagagg ttaagatctg gaatcccggt 120  
gaagtcgctg agcaagctcg ccatgactac gcttcgcaga ttcattccctc acatctcacc 180  
attgatccct ccctcgagct tcctcaaagc acacctctcg tcctaaagtt gtgcaaggat 240  
atgttcaagg cgtggtcgaa tttggatgat tcttgctttg ttgttgagaa aatttccggg 300  
ggcataacaa atttggttact caagggttca gttaaacaag aaaactgcat tgaggaaact 360  
ataactgtca gattgtatgg acccaacact gagtacatta ttgatcggca gaggggaattg 420  
caggctacca aatacatcac agctgcagga tttggtgcta agtggctcgg catatttggg 480  
aatggcatgg tgcaatcttt tataaatgca cacactctat ctnccttcaga tatgcgagag 540  
ccaaagctgg ctgctaaaaat agc 563

<210> 4760  
 <211> 517  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmfl02220068b10d1  
  
 <400> 4760  
  
 atgatgacaa caatacaaga aaaagaatga tatatcaatt tatatagcct atgtactagg 60  
 attacaacat agaätgtaga agagcctgta gctcaaacat aaacgcctaa ttagccatta 120  
 ttgtgataag cgtctaaaaa tgatatgtta cacaacatt aaactacatg aatcagggga 180  
 ctcattgctac aaacttgacg tacaaaaatc ccacgaatga ctgagtataa gtataatcta 240  
 tctatctact catctcattc ttgcatcctg aaaggttagga ctgtgccagc aagaaatact 300  
 tctctttgtg cctttttgtac tcgtgggtatc gaaggaaaaa gtaaccaaga taatcaaatt 360  
 caattgcaga catctttgcc tgaattagac ccacaaatgc ccagaaaatg tgagaagcaa 420  
 gggaaaatgt atttgacctca acatacaaag tttcaagatc tttctcagac acctcttggg 480  
 gtctttcagg tttcaagtaa tgcctgagga aatgata 517

<210> 4761  
 <211> 557  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmfl02220068b11a1  
  
 <400> 4761  
  
 tgggtgctaaa aaggagcctt tagttacttg ggtgcacat tggctagacc attcttaggt 60  
 ccatttgcag ccttttcaga tgggtctagcc aatggtgcta aaaaggagcc tttagttact 120  
 tgggtgcata aaaattttca ggggaatactc accaacgaga ctaggtgcct gcgatgtgaa 180  
 actgtgacag ctagggatga aacatttttt gatttgagcc ttgatattga acaaaatagt 240  
 tcaattacaa gttgtttgaa aaacttcagt tcgacggaga cattgaatgc cgaagacaaa 300  
 tttttttgtg acaagtgtg cagtttgcaa gaagctcaga agagaatgaa gataaagaaa 360  
 ccacctcaca tcttgggtcat ccaccttaag cggtttaaat acattgaaca actgggtcgc 420  
 tacaagaagc tgtcttaccg ggttgtcttc cctcttgagc tgaaattgag cgatactgct 480

gaaaattcag atattgagta ttctctatTT gcagtagttg tccatgTTgg gaagtggccc 540  
aaccatgggc attatgt 557

<210> 4762  
<211> 331  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068b11d1

<400> 4762

ctacgagtga acctgccatt gcatcaagtt aatatcgatc atatactaaa caggtaacat 60  
gatggatatt ctgctggTga aatttttaaaa ccatatgcac tgattttcat ggtaggactc 120  
aattaggtga aaaaggacag cgttaccact gtccactgtg catgtccacc actaaggcta 180  
cattttgcca acccttattc ttttaagaggt gcttaataac tacttatgcc tgttTgattt 240  
acccggacca tcatcattga ctactacacc tatgtacctg acaagtgcaa atgactctag 300  
catgtaagat tcataaggct actacgttta c 331

<210> 4763  
<211> 522  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068b12a1

<400> 4763

ctcgagccga ttcggctcga ggaacgatca ggagttccgc ggacggagga agaacacaag 60  
ttgttttttg ttggattgca gaaagtaggg aaaggtgatt ggagaggaat ctccaaaaac 120  
tacgtcaaaa cgcgaactcc gacgcattgt gtcagccatg ctcagaagta ctttctccga 180  
cgaagcaacc tcaatcgccg tcgccgtaga tccagcctct ttgacatcac caccgacacg 240  
gtctctgcaa ttccgatgga ggaagaacag gtccagaatc aagacaccct gtgtcattca 300  
caacaacaac ccgtgttccc tgctgaaact agcaaaatca atgggtttcc agcgatgcca 360  
gtgtatcagc ttggcgTTgg ctcttctgga gtgatttcag tccaaggtac tggataccca 420  
atggaagaac tcactctggg acaaggaaac gctgaagaac acaatgtgcc aaacacggcc 480  
tctacagtgt ctggtatcat caccctctgt tcttctagtt ct 522

<210> 4764  
<211> 478  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068b12d1

<400> 4764

catcagtga agttcatatc gaacgttaat acattatcag caaagaacag agtgtacttt 60  
gttattttca gttacatcaa ctactacaaa cgtaaaccggc caaataaaca agaactctaaa 120  
gtcatgacat taattaacat aagcaaacat gacgaaacag gacaggacct tttctgggggt 180  
ctgtacaagg aacagaagga tcaaattcag tctgttaaaa ctcttcttgc cttctctaatt 240  
ccatcgccct ttccttcaac ctctttctct ttctcccacc aaaaagacag gaaactagag 300  
aaatattaat atatgtaatt aatctgtgaa tccaaggacc atattctcaa gcaacactaa 360  
tgatgctatc tccattgctg aaacattgca tggcatgtaa agctgaaatg cttgatgatg 420  
tctgtctttg gtcagatgag aaggatagcc ccagggacag tgtcgggtggt ggggtcaat 478

<210> 4765  
<211> 510  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068c01a1

<400> 4765

attttaatca cgcgcacatc atcacaacac aacaattcac taagctaaaa tcacttcac 60  
atggcttctt cgtgtgcttc ctctgccatt gcagctgttg ccactctccac accaagttcc 120  
cagaagaatg gatcactctt gggaagcaca aaagcttctt ttcttagtggt gaggaaactg 180  
aaggagaaca actttacagc accagttgga gcacgatcca gcactacagt ttgcgcagtt 240  
gctgagcctg ataggcctct gtggctccca ggcagcacc ctcctccatg gctagatggc 300  
agtttgccag gagattctgg ctttgatcct ctaggtcttg catctgatcc tgagagcctg 360  
agatggaatg tccaaacaga gcttgtgcac tgcagatggg ccatgttggg agctgctggc 420  
attttcatcc cagaattcct cacaaagatt ggtatgctga acaccccttt atggtacact 480  
gctggagagt tggagtactt cacaaacacc 510

<210> 4766  
 <211> 462  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068c01d1

<400> 4766

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 ttgtacattg aatcttcaat ctatgcatga caatagaagt agccatttta caagctttca 120  
 ccaacataaa cactcccacc taaaaccatt taagcgttac aacttagtta aaaagggttg 180  
 ccaatgtttc tccaaggctt gcaatcatag agttgttcca acacttctca cttgggagtg 240  
 aaagcagcaa aaatagtagc atggccagga tctgcaaggt gagcaaagag gttgtcaata 300  
 ggaccagtgc cagtgtaaat gtgctggaac catgccccca tcacagccaa catggccaac 360  
 ctcccattct tgatctcctt tgctctcaac tccttgatct tctcaggaga accacttccc 420  
 cagccaagtg ggtcaaacca aagcccacct gggtacccaa ca 462

<210> 4767  
 <211> 569  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068c02a1

<400> 4767

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 tctctgtgt tatattttgt cctcttttat tctcatctga tcacacacac tctgtcacgc 120  
 acccaccatt ctactacact cctctctctc actctcactc tctgctccgt gatagctgta 180  
 ccacgttttt ctctccatct cgaaacacca tctctgcctc agtcccaacc catcaccatt 240  
 ctcatggctg ctctagctct agcacttctt cttctggctt tcaccggcac ttcaagtgct 300  
 acatggtgcg tttgcaagga tggaagcgac gcgatcctgc agaagacgtt agactatgct 360  
 tgtggagctg gtgctgactg taaccctctt cacctaaacg ggccttgttt tcagcccaac 420  
 accgtcaggg cccactgtaa ctacgccgtg aacagctact tccaaaagaa aggtcaagct 480  
 caagggtcat gcgaagttgc gggaacagcc actgttactg catctgaccc cagctctagc 540



ggttgtgtct acccttctag cgtcagcgc

569

<210> 4768  
<211> 431  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068c02d1

<400> 4768

ccgaaacaat tgggcatgat ttctattcat tgaaagcaca aaattaacgg tttatagtta 60  
cgtaaataat tacatagcat tgggtgcact aggtccaccc ttccatctca ttgacaacgt 120  
tatgtacttc ttcgtacaga gcttaagatt aagaacaagt ggagccaagt tgttaccata 180  
ttcaattaat taatcaaaaa accaatagct agtgggaagg ggagaaaaat attatataag 240  
aaccacaaaa actaacgtcc caagttcaac acctagaaaa atagcattca cattaatata 300  
gtgaaataag gcattttgca ccatataccc aggtcaagcc attttcattc tcaacccag 360  
cagagcatca tgaaggcaga gatgagggcg atcgcgatcg agaagaaact actgctgtga 420  
acaaatctaa t 431

<210> 4769  
<211> 433  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068c03a1

<400> 4769

ggtcaaaactc gcgaaacctg tcatcgcggt ttccacctcg aacgccgcga aaaacattcc 60  
ctcctccctc aaattcggca caatcctcct cgattcccct ctcttccttt ccatgctcaa 120  
caacaacgaa tacgtcaacg ccgattcacg aactcgccga gtcgaagtga gtcagtctga 180  
ctcggcgggcg attctgttct cctcgggaac cacggggcg gtgaagggcg tgctccttac 240  
gcaccgcaac ttcacgcgc tgattggagg gttctatcac cttagaatgg tgggtggatga 300  
tgatccgcac ccggtgtcgt tgttcacgct ccccggttc cacgtggtcg ggtctttatg 360  
ctgggtaggg gcatcgccga cggagagacg cttgtgttca tgcatagggt tgatttcaag 420  
ggatgctgaa gct 433

<210> 4770  
<211> 371  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068c03d1

<400> 4770

caaagaatgg tattactaat accagaatgt actttaataa taatttatat acaaagagaa 60  
cagtagtgga ttccacgtcc aataataagg ggcttttctt agcatccaat aagggtgaggc 120  
ataaggaaga caggcctaac cttaaaacct ttacctcaat cagaaacata tatgtttctc 180  
ttcttctgat gaatgaaatc aattgtacaa aaatcagcaa tatacaaaca tatttcctat 240  
ttgacaattc agctaataaa tgaatgaact ggctctatgg atcttatggt cctaacataa 300  
gctcaatcta acgtcattgc cacatggatg atgctggaat gcgactaatg gcgggccaag 360  
tgaatgaaag t 371

<210> 4771  
<211> 355  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068c04a1

<400> 4771

accttctgag gttaaagcaa tatacaaaga gagagagaga gagaaaatga tgaaggcggc 60  
gatgctcaga tctctacact ccgctcgccac ccgcggtgcc tttcatattt tctcggcgtg 120  
gtgacgcctc cgagccggtg ccggagcgca aggtaaccct tctcggcgcc gtcggcgggg 180  
ttggaaaagc ctctctccct ctaaagtagc ttaataccca tagttcgagc ctctttcttt 240  
acgatatagc cggaactccc cgggtgtgtc cccctattta accccactta caccacttct 300  
ggggtatggg gtaccaaggg gacgaaaagt ttggaaaagc atatggaggg tgccg 355

<210> 4772  
<211> 78  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068c04d1

<400> 4772

tttcgccctt tttttttata gaatcttggg atttcacaaa tgaagattac acatggactg 60  
agcttcatga cacatgag 78

<210> 4773

<211> 365

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068c05a1

<400> 4773

gtttctcagt catctttggc atatatcaaa attaaccttg cattattcac cagaatggct 60  
aattaatatg aaaacaactt cccccctcaa aagcaagaca ctcagcctgg caaagagtac 120  
ctcatgaatc caccacccca atacatcaga ttccaatata agccatcaga taaacttcag 180  
ggaaagatag ctgttgtaac cgggggtgat tctggaatcg gacgatccgg gtgcaactag 240  
gtttcattag aagggtgctac tgtgatcttc acctacgtga atgggcaaga ggacagggac 300  
acgagcgaca cgcttgacat tataaaaata gctaagactg aagatgctta agatccattg 360  
gctat 365

<210> 4774

<211> 469

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068c05d1

<400> 4774

ataatagatc ttgcttcaaa tatatttcaa gtagtacatt ttcttaggtt tatacgtttg 60  
aaagcaatat ttatgcttgc tttcaacgaa tcttcatcca gacatatatt atacattcat 120  
acatatcgat agaaccgtgc tcattcactg ccattcgtaa catagtgatg gcgtagacaa 180  
gaaccacact gagtcaatga catttcatat accagtctcg attaatgagg tatcatatat 240  
atatccgcca attcatcaag cattcacaat gattccacca ttgggggtgga ggacttggcc 300  
agtaatgtaa gaggagcata tgttgctagc aagaaagaca tgagagggag caacttcaat 360  
aggttggcca gctctcttca ttggcacatg cgaaccaaata tgaacaatag gttcctcgtg 420

catagttgct actattaacg gaggccagat ggggccatgt gcaaccccg

469

<210> 4775  
<211> 118  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068c06a1

<400> 4775

ggaactgaag cataattgtc gtacttcaaa attcaactcc caacacacaa catcatggct 60

catggatatc aacgcctcca cgcgcggaga aagcaacaca gttatcctga ccagaat 118

<210> 4776  
<211> 393  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068c06d1

<400> 4776

gaacgtaaca ggactctata attgatattg cttgaggtat attgcacgtt gtgcatatta 60

taaggaaaat acgttagact ggacatctta tgtttgact taacaaatcg agaatacatc 120

aaatgttaca cgctcgtacc attggatcgt atcgcgctcg tatcatgaca tccttcacga 180

acagaagtct ttacctggca ccacagtga gacctgactg ttacgaatgc cagaaagtat 240

ccatgaggta tcatcatgga tcgcacaatc aagtgcgcac tcgcaaagga tctagcaagg 300

cagtggacga cttggacaat actgtagtat gggacaatga tgctaccatg cgagacgagc 360

tagggaagag ctttaatggg ctggtcaaat gtt 393

<210> 4777  
<211> 523  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068c07a1

<400> 4777

atgatttttag ggttctcact gccgttgaat tggggatgcg gaatcatgaa atcgtaacca 60

ccgaactcat cgaccgaatt gcgcgtctca agcatggagg cacgtacaag gttttgaaaa 120

acttgtctcaa acacaagttg ttgcatcacg actcttctaa atatgatggg ttccgcctta 180  
 cctaccttgg ttatgatttt cttgccatta agactatggg gaacaaagga gtgtttgtag 240  
 ctgttggacg ccagattggg gttggaaagg aatctgatat atttgagggt gcccggaag 300  
 acggaacagt tctggctatg aagttgcata ggcttgaag agtctcttcc cgagccgtca 360  
 aatctaagcg tgactacttg agacatcgca gtagttataa ttggctctat ttgtctcgcc 420  
 tcgctgcact taaagaattt gctttcatga aggctttgga aacacatggc tcccctgttc 480  
 aaatgcaata gaaagcaata gacattgtgt agtcatgtca ctc 523

<210> 4778  
 <211> 549  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220068c07d1

<400> 4778

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 gagaaggcaa aattttcatt ccaaataaat atcggaata atatgattat cctccgcagg 120  
 aaaagggggg cgagacaata acctatttgc tttcctatct ctcaacttta cacatgtttg 180  
 aacttttgaa cagataaagg ccacctacaa ttgcctacct atctgataga tgtcaccgtt 240  
 gaaactatat ataaagtcct tttcagttca cttcacaaca aggccctcata ttttcaccag 300  
 ctgctcaact gtttctggat tttagaattg tgagatgatc taccaccttt gtctttgtag 360  
 gaatttctgg ctgcaacagt ctttcgtgcc ttatgagctt tcgctatggc atgtcgacgt 420  
 tgcttactca agttcttaac gagttcagct tcattttgca atgtatcttc attgctttgc 480  
 ccattgacac ttgcatgtcc ctttttagat ccactgcttt cacgtgcttt acagatctcc 540  
 tctttccct 549

<210> 4779  
 <211> 555  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220068c08a1

<400> 4779

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cctcctttcc tctccctcct cctagatcga gtcagaatca tggccaaagc tgaagggtggc 120  
aaggaaccaa taaatgaaca agcagtagca aatatgtatg ctgcaatgag gtctgagctc 180  
aaccaaattt actccaaaat aactgaactg gagatggaag ttagtgagca cacattgggt 240  
accaatgccca ttcaaccact tgaccaatct agacgatgct atcgtatgat tggaggggtg 300  
cttgtggaga gaaccatcaa agaggtcttg cctgctgtgc agcgaaataa agaaggactc 360  
gaagaggttg tggcaaggct taacgaggcg ttggaaaaga agaaaaagga aatttctgag 420  
tttgaggcta attataaaat caggataagg aaggctgatg ctgangtgaa ggatgaatct 480  
ggtaagaagg aagggtctgc tcaaggggtt catcgtggtc ctgcangtgg aagtgaatga 540  
tttggtatt tttat 555

<210> 4780  
<211> 425  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220068c08d1  
<400> 4780

gggaaaatgc cttaaacctt tttccattac ttttttttgg attggttcaa aaacccaatt 60  
taacaaaagg ggggtttaga aaagcctttt acccctgggtg aaacattttg gttcctaaaa 120  
gaggccaaat agcttgatcc cccattatt tgccctaatt ttgcatacaa aaattttcct 180  
taaccccaac caatgaaaat aaattttttc agcccaaggc aagtaaacct aagggttat 240  
taagccaggg atacctgctt aagaacgggg gtggaaacac cttttggatc cccggttaag 300  
cagcaaaacc ccgttaaaaa ggggcccaag ttacctttac ttgcctttat ttggaccgga 360  
caagaattta atttgaccc ccccttttagc ttcattttaa gccaatgacc aaactggctg 420  
tacc 425

<210> 4781  
<211> 508  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220068c09a1

<400> 4781

ggctcgagga actaccctaa acgacgccgc attcaaattt cgcgccaccga cgcattaacc 60  
ccttccaagc cccgacgggt cccgagtggg gatggcggaa acgcacgaag acacaccgaa 120  
agaaaccgtt cacaaagaag aagaagaaga ggaccaaagc ttcgaagagc tcggcggtgga 180  
cgctcgtctc ctctcgcccc taatcaagaa aagaatcgag aaacctactc caattcagcg 240  
cgctcgcgatt ccaatcattc tggaaggtaa ggacgtgggt gcacgtgcca aaacagggtc 300  
gggaaagaca ctcgcggtacc ttctcccggt gcttcagaaa ctgtttactg ctaactctga 360  
tcggaagaaa ctcgcgccaa atgcttttgt tcttggtcct actcgcgaa taagtcaaca 420  
ggtatatgcg gaagtgaagt ctctggttga attatgcaga gttcagctga aagttgtgca 480  
gttgaatagt aacatgcttg ctaatgac 508

<210> 4782

<211> 494

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220068c09d1

<400> 4782

gaaagctaaa ttctagtttc aattagcata atttaactta gtaatgagca ataacttcag 60  
gccctacgcg gtataaagga aacaacaatt ccaatactgt actgtttttc gttttacgat 120  
atttgacct aaattacaac aaaattgagc ctgttataag gctttgtagg aaacgggcaa 180  
atcaatcaaa tacccttatt ctttttgtgt ttatgcctat cactgctatt taggctatcg 240  
cttccaccag tcttcttagc tttgtgcggg ctttttgatg acgccgtagc atagatagcc 300  
ttcagagggt ctcttctttt tcttaattat ctcttgatc ccttgcggcg attattatct 360  
cccattgcat cccttgcaag cttgaccatt tcccttgctt ctttcgttgg tttgtctaata 420  
aggtacttaa gcacatcccg taagtgaaga ggtggtgcat tcttgctaaa attttgtcat 480  
gcttcagtag atct 494

<210> 4783

<211> 594

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220068c10a1

<400> 4783

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ttatggggac gcgtctcctg gaggctcact ccggagcggg gcgagtgcac gcccgattcg 120  
gcttcggcaa gaaaaaggct cccgccccaa agaaagcctc caggggatcg ggccgagaca 180  
ccgacagacc cctttggtat ccgggcgcca aagcgccga atacctcgat gggagtcttg 240  
tcggagacta cgggttcgat ccgtttgggc tagggaagcc cgcggagtac ctgcagctcg 300  
agctggactc gctggaccag aaccttgca agaactggc tggggacatc attggaacca 360  
ggaccgagct cgcggacgtg aagtccacgc cgtttcagcc ctacagcgag gtgtttgggc 420  
tccagagggt ccgtgagtgc gaactcatcc atggaagggt ggccatgctc gccactctcg 480  
gagctctcac tgttgagtgg ctactggtg ttacatggca agacgccgga aagggtggagc 540  
tagtagaatg gtcatcatac cttgggcaac cacttcattc tcaacaccac actg 594

<210> 4784

<211> 260

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220068c10d1

<400> 4784

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aatgcgtatt tattaccctt cgtgattccc tttgaaggcc cggcatagtc aacatttaca 120  
ggggagcatt taacatcaag ctgaaacctt tttgcttacc cactccaatt ttacgttaca 180  
agctttctac aagtactacg aattcaactt ggggaaaatg tgctaatttc aaccaaaggc 240  
cgaccaagaa gggcctttta 260

<210> 4785

<211> 557

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220068c11a1

<400> 4785



gttttctggt ttctttcgtc atgctctgat ttattgctta cgatttggaa tagtgacaag 60  
 taaagacaaa tcacaactca cggtcaccca attccaagaa tagagcttta cgaggcagcg 120  
 gcttcaaaag gaggggaata ttcagaggaa aagaaagagt agttgttgaa caataagagc 180  
 tttcctcatt cttagtttat ctcaacaagga aggtacgtaa gatccttaac acccttaccg 240  
 cggttacttg ccgcctcaat ccattgctga aatgaatgct cataaataaa tatatttgca 300  
 ggctacgaat ctctgctcct agatttttgt ttcttaatta tcaatctagt ctctaaatta 360  
 tattaaaaga tttaatttga ttccaaattt ttaaataatt taatttaatt tctatattat 420  
 tttaaaatag attaatttga ccatttttgt ccaattgtga ttagtataac aaatttcagc 480  
 ggcttttatt tatgaacagt ggaattatta tattttattat tagtttaaaa aataaaacaa 540  
 ttttcaattc tttttct 557

<210> 4786  
 <211> 519  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220068c11d1  
 <400> 4786

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 agttggaatt cagattttga gatcacgatg agagtgcatt tatccatgca tttcatttat 180  
 tttgtgcaca ttagcatgtg gtttattaaa agttgtgttt taaaacataa cttattcata 240  
 actccgtaat aaattcaaaa attactcatg ttgataaatt tttcaaaaaa actaccactg 300  
 ttatgtaaaa aaagcctaaa ttggaatagc gttataggtc taataaactg tatattctaa 360  
 agcatatagt taaataatga aaatatacgt cactataaat tcaaaagttt ggagcatcct 420  
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 tcccaaattt tttaaaagtt tacttttagtc acaaaattat 519

<210> 4787  
 <211> 302  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220068c12a1

<400> 4787

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tcctccgat cctctccgc ctacaccgtc gtggcccccg tcgctcgtg ccatatgaac 180  
gttggtctca cagcggcatc tgcaatgaac gtaccgcaga tgccttcata tcgatactga 240  
tgctgcttgc caactcctat gatcgctaca aggaacacag acccgaaggt ccgaccctac 300  
ta 302

<210> 4788

<211> 412

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220068c12d1

<400> 4788

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taattcacat tatataaaaa atgggtatag aactgaatt aactgtacta gaactaccac 120  
aagtcctctg tcttgaaggg actctgatgt ttctaaaggg ttttaagggt tttcaatact 180  
aggaagcttt tcaccacata ccaaaccatt ttaccggga tggtttcttt gctttgaaga 240  
caccacacaa gtagtacttt tcttgaaaat ttcggcattg aataggaggt aatttagaac 300  
gaaaaattag aagctctgca ttttcaacct ctggtcttaa ggaaagggtca aagttcatca 360  
tgtcctttac caggttggga aagggccttt taactctttc actatcagga aa 412

<210> 4789

<211> 247

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220068d01d1

<400> 4789

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taaaaccatg ttggaaaaat tgacccttta aaactgggtga tggacagaac aaaatggcca 120

ggggccctgt acaatatggg tgcattcggg cttcccgccc aaaattatga taacttgcaa 180  
gaacccccaa ccaatttgag cccacatagc taataaacc cctgacattg gaccaaacc 240  
ctcttaa 247

<210> 4790  
<211> 229  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmfl02220068d02a1  
<400> 4790

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ctagtaacaa gtgatccatt atacattcat ggaactcaga tatcaatagg tttttttgca 120  
gctgatccct aaaagaaaag gtgtcaacct tcttggtcta gcctggtttg acattactac 180  
tttgtaattc gaaatttaag tagtgaaata agtgtgaatt tgatattcc 229

<210> 4791  
<211> 229  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmfl02220068d02d1  
<400> 4791

ggaatatcaa attcacactt atttcactac ttaaatttcg aattacaaag tagtaatgtc 60  
aaaccaggct agaccaagaa ggttgacacc ttttctttta gggatcagct gcaaaaaaac 120  
ctattgatat ctgagttcca tgaatgtata atggatcact tggttactagg acaactgcat 180  
cttacattga gagcattgta caagcaataa attttacctt gagttcaat 229

<210> 4792  
<211> 417  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmfl02220068d03a1  
<400> 4792

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ccttttaggtg taaaagtcac agctaacgat atagaaatga aaccgctaac tgtaaacact 120  
gaagattctt tttccagttt tactggaact tgcttctaac aatgatattg aaggcttcaa 180  
ggtcctttta gagaaggatt cttctacgat caatgaggtt gggctctggt atggccggca 240  
aaacggatca aagcaatttg ttcttgagca cagatccctt ttgatgggtg ctgccactta 300  
tggtagcatt gatgttatga agatgggtact ttgtgcccc gaggtgatg tgaatttcgc 360  
gtgtggggcg aacaaaaaca ctgcccttcc actgtgctga ttctgggtggg cctacca 417

<210> 4793

<211> 379

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068d03d1

<400> 4793

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gaagaacaat gtaaacttta ctatctaatt tatctgccgt aaatattcaa cagtgc aaat 120  
catctttaat tattccctca gaaagaaaca acttcaacca taggcaacag caaatcattg 180  
acttggttta acttagtgaa cttcagaaaa atctttcaaa acaaacgcat gctaataatg 240  
ggttttgttc cattataaac caaactagct tgcttgatcg tgaactcaga aatcaagtaa 300  
aatagcaagg ggaaaaatcc tgaaacgggg ccatttttga agaaaaatgg ataaccgcga 360  
cgggattttt cttctacta 379

<210> 4794

<211> 169

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068d04a1

<400> 4794

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ttactcaagt ctaaatttta tcttttcttg ggattttttg gcttttaagg gaagggaat 120  
tattctttta ttaaaaaaaaa atatcaaaat ttataatatt ttaaagggg 169

<210> 4795  
<211> 136  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068d04d1

<400> 4795

attcaaagac taatttccat tcagtaaaat gcaaaaaata cacagaaaaa gatgaaattt 60  
agacttgagt aacttcttat ttttgggggt acaaaacttt tacctgaggg aactagctac 120  
attttaaaag aatctt 136

<210> 4796  
<211> 478  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068d05a1

<400> 4796

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tatcggcaga taaaaaaca gccatacccc aaatcacgct tttgccgtgg tgttcctgat 120  
cctaagatca gaatttatga tgttggtatg aagaagaaag gtggtgatga gtttcccttc 180  
tgtgttcac tcggttagctg ggaaaaagaa aatgtttcaa gtgaagcatt ggaagctgct 240  
agaattgcat gcaacaaata tatggcgaaa tttgctggaa aagatgcttt ccaacttgaga 300  
gtccgagtac atccattcca tgttcttagg atcaacaaaa tgctttcatg tgctggagct 360  
gataagcttc agactggaat gagaggtgca tttggaaagc cacagggaac atgtgctaga 420  
gtcgccattg gtcacgttct tctttctgtc cgctgcaagg acaggaacag tcatcatg 478

<210> 4797  
<211> 465  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068d05d1

<400> 4797

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agattcgatc aacttaacat agtgtaatag ttttaacta cgagtcgagc aattaagaaa 120

ctcagattga gtcgaacaca actattgtgg tcaaagccca ctgtttccat gtgacaagcc 180  
atcttagcag tcgcagtagc actagattga aaagctcgtc ctggtttagac ggtttgccag 240  
tggtccatgg caccacagaa gcttagcatt cacacatga ggcacaatcc tgctctctga 300  
cttgtacttg agataatcag cacggctaaa cttggtgaaa ccccatctcc ggctaactat 360  
gatcttctga cgaccagggg acttacactt agcacgacga agagcctgct gtgcatgatg 420  
actgatgctg tccttgcagc ggacagaaa aagaacctga ccaat 465

<210> 4798  
<211> 438  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068d06a1

<400> 4798

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acatactcat tgatgggtgt atactggtgg atgacagtgc tggggctctt tccttcttta 120  
atgagatgag agcaagagga atagctccca ccaagattag gtacactact ttgatgaagg 180  
ctttcgcata ctcggtcag ccgaagcttg ctcacagagt gtttaacgag atggacagtg 240  
accctcgggt gaaggtggat ttgatcgctt ggaacatgtt ggtggaagga tattgcaggt 300  
tgcggttggt ggaagaggcg aaaaaagtgg ttcacaagat gaaggagagt ggatttcacc 360  
ctgatgtggg cactgatggc agtttagcca acggaattgc attggcaagg aacccggaga 420  
ggcacttctg ctttgaa 438

<210> 4799  
<211> 522  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068d06d1

<400> 4799

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taciaagcga cattgcagtt gtagagtaca ataggcactt tattttggta actaaacatt 120  
tattgctaca ttgtacaata gaagagtcct ttctcatact tgagtatgtt ttgacaagct 180

attaaagggg gagcaactga accgaatcag aggtattgcc atacccttcc ataggtttta 240  
accgtcactc acttccatca taataggaat tatgcaaacc catccaaaac ttaaaccgct 300  
cagcagtcct tttcctctct actcttgtgt attgtgtagc ccttgaagca tgcttactag 360  
taaacattat tgaatgcatt cccacatata ttctagtaaa cttggacttg ttgggaggta 420  
tcccattgta cttcatgcaa gccactatct acaatgcctt tctaaagaaa gcagccctca 480  
cacatatatc agcaattgta tctaaaagcg ctacatccgg tt 522

<210> 4800  
<211> 463  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068d07a1

<400> 4800

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cctcctttcc tctccctcct cctagatcga gtcagaatca tggccaaagc tgaagggtggc 120  
aaggaaccaa ttaatgaaca agccgtctca aatatgtatg ctgcaatgag gtctgagctc 180  
aaccaaattt actccaaaat aactgaactg gagatggaag ttagcgagca cacattggat 240  
accaatgcc a ttcaaccact tgaccaatct agacgatgct gtcgtatgat tggaggggtg 300  
cttgtggaga gaaccaataa agaggctctg cctgctgggc agcgaaataa aaaaagactc 360  
caagagcgtg tggccaggct taaccaagcg gtggaaaaga agaaaaagga aatttctgag 420  
tttgaggcta attataaaat cacgataagg aaggctgatg ctg 463

<210> 4801  
<211> 473  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068d07d1

<400> 4801

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attgaaatct cataggatta ttgtcccaag cctgactttt acaaacaact tcgcctcaag 120  
gttttttagag acaccattga ctgccttgag acaactatct aaccaaataa gagacctgaa 180

aatcctggct aaaatcctag gcttcgaact aacgggtctcc tatacatttt acagacagca 240  
cgaacgtgaa atgtactgac tatatcccct cccagaatca cagtgggtta atgctgcatg 300  
atgatcccggt gataaagttt gctccataca cccgtggaga ccttggtcct ataggctatc 360  
cacctgaaac tgtgctaact gcgctagacc agaattttga acactacgga cctggggagat 420  
actatgagat tcttcccaca tcttaaagta cgcataagga cccatttctt gac 473

<210> 4802  
<211> 545  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068d08a1

<400> 4802

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tggacgatga agacaacctt ctgatccgtc aagtgggtgcc ggacgcggag gaccaccacc 120  
tgctcaacgc ggagcaccac ttctccgct tcaagacaaa gttcgccaag acctacgcca 180  
cgcaggagga gcacgaccac cgcttccgta tcttcaagaa caacttgctc cgcgccaagt 240  
cgcaccagaa attggacccc tccgccgtcc acggcgctac cagggttctcc gatctcactc 300  
cgtctgagtt tcgcgccag ttctcggcc tgaagccgct ccggcttccc tccgacgctc 360  
agaaggctcc gatccttccg accagcgacc ttactaccga tttcgattgg cgcgaccatg 420  
gagctgttac cggcgtcaag aatcagggct cgtgcggatc gtgttggtca tttagcgccg 480  
ttggagcttt ggaggtgccc attttctttc taccggtggg ctcgtagacc ttaatgagca 540  
gcaac 545

<210> 4803  
<211> 383  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068d08d1

<400> 4803

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acttacggct ttaatgcata accgagggct taacaagaac cgctccata acatatttca 120



ttactgcaat ttttgacgta cgccctatac tggggcccct accatgttaa ggcattccatc 180  
cgtatgttta aggggtaaaa acgtgtatag catctacagt tgaaaccata gagctcacc 240  
cacatacatt gcaatctatg caaatctttg aatatccttt ttttaccag ctttcccccc 300  
aagaattttt tatgagccag ttagggcttt ccttaaaacg aatcggagca ttagcaccag 360  
atccatagcc cacccaaaga acc 383

<210> 4804  
<211> 531  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068d09a1

<400> 4804

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attctttttg gcagggatcc aaacaaaaca aaacttgact ggccaacaag gaagaaaatt 120  
tgtcttggtg tagctaaagc tttggcttat cttcatgaag agtccagaat aaaaatcata 180  
catagggatg ttaaggcaag taatgtattg ctgcacaagg attttaatgc taaagtctca 240  
gatttttggtt tggcaaaact tattgaagat gagaaaacc acattagcac tcgagttgca 300  
ggaaccattg gttacatggc tcttgagtat gcaatgcgtg gctatctaac tgacaaagca 360  
gatgtttata gctttggggt ggttgcaactg gaaactgtca gtggaaagag caatacaaat 420  
ttcaggccaa acgaggattt tgattacctt cttgattggg catatgttct gcaagagaaa 480  
gggagcttct tggagctggt tgatccaaat ttgggttaga ataattaact g 531

<210> 4805  
<211> 498  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068d09d1

<400> 4805

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acaataataa cagtttttagt tgcattaatt tacacaagaa agtaaattaa cgtaatatgc 120  
aacacatgtg tgtcacgttc atgaggatca ttttataatg atatgcaaca ttgaattaaa 180

tatttctcatg caatggagca ttctggagga aggccttgag ggaaacgtct gatatcagtg 240  
 caataattgt aaatcatgta attcttttgc acccaacgga tctttgcctg ccccgaggcg 300  
 tccagtgatt ggccagtgga ggaagaagtt tgggaattga agtttctgta tgaggctgtg 360  
 aatggggcct tgctccaatc ccgtttcaca agctcaccca ttgtgggcca atcctcaatg 420  
 ttccaaagac tagagtatat ttctcatgggt tggctttttt ggaatggaac ccctttaggt 480  
 ttcaaattct tgaactcc 498

<210> 4806  
 <211> 524  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220068d10a1  
 <400> 4806

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 gcccgaagcg aatagtcctc caccaaaacc ttgggaacaa gcaggttcct cttcgggtcc 120  
 agcgcctttc aaacccccgt cagctggcaa cacaagtgat gtaattgagg cttcagggac 180  
 tgcaaaacct ggggaaattg tttctagttc tgataggagt gcagctgtca acaggaatac 240  
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 ttatggtgga ctaggaggag gaatgtatgg atcatcttat ggtgggggga tgtatggtaa 420  
 cagtatgtac aggggaagat atggtggcat gtatgggtca tccgggatgt acgggggtgg 480  
 aatgtataac agtggcttan ggggtccaat ggggtggttat ggca 524

<210> 4807  
 <211> 400  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220068d10d1  
 <400> 4807

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acacaataat acctgtaagg ggaaaattac tgttctactgg aaagtcaaag aacgtgataa 120  
ccaggacatg tgcataaatg gcatgaggat caagatacca tgacttgcaa aattgaaagc 180  
catcttatgc tgcgatggaa catcctgctg gatggtaaac ccaggaacac atgacttatg 240  
cgcgatcagt gtcacatcatg gaatgcaggc gcccaacgga tctttgaatg cccctgggcg 300  
aacagtgatt ggccaacagc agaatgagtt agtgaattgc aggatttgcc taaagcttgg 360  
actgggaacc acgttgagca gcctttggtg actccatgcc 400

<210> 4808  
<211> 584  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220068d11a1

<400> 4808

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accacaaaga acccaaggag tttgtctcgt tggaccaact tgctgaactt ggagtcctta 180  
gctggaaatt agatgctgat aaccatgaaa atgatccaga gctgaaaaag attcgtgaag 240  
agcgtggcta cacctacatg gatgtttgtg aggtctgccc agaaaagttg ccaaattatg 300  
agcagaaaat caaaagcttc tttgaagaac atcttcacac tgatgaggag atccgctttt 360  
gtgctgctgg aagtgggtat tttgatgtta gggattgcaa tgatgcttgg attcagagtgt 420  
gggtcaagaa aggaggaatg atcatcttac ctgctggaat ttatcatcgc ttacactag 480  
atgagagcaa ctacattaag gctttgcgtt nttttgttgg tgagccagtt tggacttcac 540  
acaatcgccc atatgaccat cttccctgca agacaacatt tgtc 584

<210> 4809  
<211> 526  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068d11d1

<400> 4809

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atggctatct ttcaaagggc cacctacaca gaaacacagg cgtgggtaaa aggcttaaag 180  
ggatcatctac acagaaacca taacataaaa agctgggacc ctttatttaa aggcaccatt 240  
attttcattt gttcaaacct tacttttagca acacaaagtc tcagtccac gtactacgat 300  
taggcggaac cagatcttac gcggcgcat caacagcatg gttgccaaca tccttttcca 360  
caaaatcctt gacatattgt tgccttgag ggagatggc atttgacga ttgtgtggag 420  
tccaaactgg ctaccaaca aaaaaacgca gagccttaat gtagttgctc tcacttagtg 480  
taaagcgatg atgaaatcca agcggtaaga tgatcattcc tccttt 526

<210> 4810  
<211> 466  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068d12a1

<400> 4810

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gactcatcag ttaaaagtat gtgattttgg gagtgcaaag atgttgccgc ctggcgaaac 180  
caacatatcg tacatatgct cgcgggtatta tagagctcca gaacttatat ttggtgcaac 240  
agaatacaca actgctattg atatttggtc tgctgggtgt gtgttggtg agcttcttgt 300  
aggacatcca atgtttccg gagagagtgg ggttgatcaa ttggtagaga tcattaagat 360  
cttggaaca ccgaccagag aagaaataca gtgcatgaat ccaattaca ccgaatttaa 420  
gtttcctcag ataaaagcac acccatggca taagggtttt cacaag 466

<210> 4811  
<211> 470  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068d12d1

<400> 4811

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cataaaactac ttgaaaaaat ggttgcaacc ctatcaccag gcactacttc atcaatggga 120  
 ttgtagcttg cgagtcaatg ataaaaaggt ttcattggtt taagggtcct atgagctgta 180  
 tagtcatgat tgtgcagggtg gacagcagag acctagacta ttagcaaagg tagcattgct 240  
 ggtgtagata tctctattaa tccaaaaacc catttacaat gctcaataat gaattcaact 300  
 tcttgcatgc tcaggaatga gacgtcgccg caactcatca ggtgcacctg ccagttcttg 360  
 agcagtgaaa tcgaacaatg gaggcaatga ttgccattt ggcaagcatg catttggtac 420  
 tcgcatatca tcaaagaaag ggtgtgcaca tgcttccaaa gcagtgcac 470

<210> 4812

<211> 347

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068e01a1

<400> 4812

atattgcgtt cattctgttt tcttgaagtc tttccctagc caatggccac tgatcgtttg 60  
 acccggttc acagtctccg tgagaggctt gatgaaacct tcttgccaa caggaacgaa 120  
 attttgccc ttctgtcaag gatcgaagct aagggaagg ggatcctgct acaccaccag 180  
 gtcattgctg agtttgagga aatccctgag gagaacatgc agaagcttac tgatgggtgcc 240  
 tttggagaag tcttgagatc tacacaggaa gccatagttt tgccaccatg ggttgctctg 300  
 gctgttcagt caaagcctgc tgtgtgagag tacctgaaag tgaatgt 347

<210> 4813

<211> 205

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068e01d1

<400> 4813

aaatctgtct cagcacccta ttaaaagcta aaacccaaat ttcaaacaat tacggacctt 60  
 ttacttacat aacaaaatta tgcccacctc cgattgcaaa acaaaaagcc ggtgccagga 120  
 ttttttgaag gaaatattac ccctcagttt actccacaca ctgggggttaa aaacagacgc 180  
 ttttgggaga tccctgaaaa ataaa 205

<210> 4814  
<211> 424  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068e02a1

<400> 4814

ggccaagtta tggcaggtac ctgagacact gctggatgag gtgcttggtta agatgagtgc 60  
accacccaag agtgacgtac cagtcattac cccaatgaa ctatccgagg ctgatggctt 120  
tgtattcggc ttccaacaa ggtttggaat gatggctgct caatttaaag cctttataga 180  
tgctactgga ggcttatgga gagcacaaca gcttgaggc aagcctgctg gcctattcta 240  
cagcaccggt tcacaagggtg gtggacaaga gactacagca ctactgcta tcaactcaact 300  
ggttcatcat ggaatgatat tggttccaat cggttacaca ttcggtgccg gcatgtttga 360  
gatggagaaa gtgagaagtg gaagtcata tggtgctgga acttacgccg gtgatggctc 420  
aaga 424

<210> 4815  
<211> 542  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068e02d1

<400> 4815

actcaaactg gtcgttgcaa tgtttatgtg cttaacgggg caatacaaaa gataggaaca 60  
agtactgttt ccgcctaaca ctaaaggact agacacaaac tttcctcatt caacaaattg 120  
caacatccac tgcaacatgt aacactcata caaagcattt cctttaccaa gattagaaag 180  
aaaaaaaaa tacttgcaag cacaggaaaa aaaaactcaa tatatttcaa gtctaaaaat 240  
tggaacaatga ttttcaagca atattgtggt atgggttaat aataatagta tgatctaata 300  
tgaaggcaag gcaacattat gcagcttgct tgagcttctt tgtgatgcca gcaatgtact 360  
tcctttggtg gaatgcttgt tgtaactcaa gctcactagg ctgtcttgag ccatcaccgg 420  
cgtaagttcc agcaccatat ggacttccac ctttcacttt ctccatctca aacattgccg 480  
caccgaatgt gtaaccgatt ggaacgaata tcattccatg atgaaccagt gagtataca 540

gt

542

<210> 4816  
<211> 499  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmfl02220068e03a1  
  
<400> 4816

ttctgctct ccaatgccct tggagaatag ggtgcttgac cctaagaagt ctcagaacat 60  
tgccattttg cttagagcgc tgaatgtgac tattgatgaa gtttgtgatg ctcttaggga 120  
aggcaattgt gatacgttgg ggacggaact tcttgaaagt ttattgaaga tggctccaac 180  
taaagatgaa gaatctaagc tgaaggagtt tcaagatgaa tcgcccttca agcttggccc 240  
ggctgagaaa tttcttaaag tcgtgcttga tatacctttt gcttttaaga gagtggatgc 300  
tatgctctac attgcaaact ttgattctga attagaatac cttaagaagt cctttgaaac 360  
tctggagggtg gcctgtgagg aattaaggaa aagccgcatg tttttgaaga tactcgaagc 420  
tgttcttaga acaggaaatt cgatgaatgt tgaaccaatc gtggtgatgc taatgcgttc 480  
aaactggaca cacttttga 499

<210> 4817  
<211> 450  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmfl02220068e03d1  
  
<400> 4817

ataagaaaaa agcaacttga aaattagcca ttggtcattc gagaatacaa ttctagagaa 60  
gcagccaacc tagcacaaac gtataaatga atgcactcag gatatgctct aggcggtaca 120  
acatatacag ggttgacacag gcgggaaaaac gagagctatg acagcatgag ctgggcacga 180  
ttatcgtagg ggtaaagctg ggttcatggt gcagtgatgatt ttgagtgaat atggcccttc 240  
acatgataat attgggctga tgaaaatcca agccatgaat gaccaaactat gcccaagcta 300  
ctttaacctg gaacatctgg gtcagattgg ctttgagagg ttaatcagat tcagaggaat 360  
cagatggctg gttaccaata atgtcaggga aaaagggttg catcatagga tcggcaggca 420

ttacagattg acggaacca accaacgtgc

450

<210> 4818  
<211> 464  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220068e05a1  
  
<400> 4818

ctttttcaag aggctgaagc atgtttcaga gtggtggcag ttgcacaagc aacaagaaga 60  
gaagaagagt ggaaagaaac aaagctggga gtgcaaggaa tcaacaaccc attaggaata 120  
agtgc aaagc ttcattaaaa gctggaagag gaaaatcaca acaggggtct gactctggat 180  
cctcacagga atcatcatca tcatcatcat cttctgcagc aacaacaaca accacctcat 240  
catcctcatc ctcaaaatct gattctaaat tcaataagac atgttacaga ccaagaagga 300  
gaaaaccaag aagaccaaga atctcattct catcctcacc aattccatat ccaattccaa 360  
ccttttcattc atcaacaaga acaacaacaa caacaatctt acacagggtt agacacggag 420  
atcttaaacc cactccaacc accgaagaaa cggctctggc tacc 464

<210> 4819  
<211> 363  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220068e05d1  
  
<400> 4819

tttctttctt tttttttttt tttttttttt tttttttttt ttttctttt ttttagcaaa 60  
ctagctcttt tattgaattt gcatgttttt caaatcacta caagaaactc gaaactgaag 120  
aagttccaag aagacactat tacttaacaa agggaaacat agcactccaa tacagaagaa 180  
actaaagaaa catagcactc caattcagaa gaaacaaaag aaacacaata ctcttagtcc 240  
taggtaaatt aagcatgaaa aacataagtt gaacattaaa agcataacaa accgagggat 300  
tgga aaaccc gaatatccac ctcaaatctt cttgaattcc cgtttagtct tgaaaatcca 360  
ttc 363



<210> 4820  
<211> 520  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220068e06a1

<400> 4820

catttttcgct tctcgtagcg ttttcggaac agttatggct tccattgccg gatccaactg 60  
cgtcgctctc cgaaccgcca acttcggcgc ctccggtaac cggaaaatcg gccagatccg 120  
ccaatggtct ccgattctca cgaatctccg tcccgtttcc ggtcttcgct accgatcgaa 180  
tactccgttt agtcctccg gtgtgagagc acaggttgct actctggagg aagcaggaac 240  
cggagcaact cagaaagtgg aagcgccggg tgcagtgggt accggagctt ccagaggcat 300  
tggcaaagcg attgcactgt cattaggtaa agcaggttgc aaggttctgg tcaactatgc 360  
aaggatcatcc aaggaagctg aggaggtttc caaggagatt gaggagtttg gtgggtcaagc 420  
tcttacatctt ggtgggatg tttctaacga ggctgatgtg gagtctatga ttaaaactgc 480  
agttgatgct nggggaacag ttgatgttat aataaacaat 520

<210> 4821  
<211> 316  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068e06d1

<400> 4821

gggccaaaag tgacaggatt gcaaataaaa taaatgccta ttacggtgac aggtccctaa 60  
tagcccagat ggaccatgaa gctgcacccc attgctttta ctagctagac atttacagtt 120  
tgagccaaaa tggcttgcta actcttttaa ggaaaattcc ataataacat tgcggggaaa 180  
atgggcttaa acgaaactgc tcattaaacg atgtataagc gggcacaaat cctgtaaaaa 240  
cgggcaagcc tatggcgcat gggaaaaggg ttgctaattt acatgaccgt gcctccatca 300  
tgggggaaaa ctcgcc 316

<210> 4822  
<211> 476  
<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220068e07a1

<400> 4822

ctcgagccga ttcggctcga ggttggtgtt cgctctgtgt ctctactct ctctatattt 60  
gcatcattca tcggaaatgg ctctcgaggt tgctgttaag gctgctgttg gggctccaaa 120  
tgttctcgga gattgtccat tttcccaaag ggtcctctta actttggagg agaagaaaat 180  
cccttacaaa ctccacctca tcgatctcag taacanaccc gaatggtttc tgggtgtgaa 240  
tcctgaaggg aaggtgccag tggttctttt tgatggcaaa tgggtggctg attctgatgt 300  
aattgtgggg atactagagg aaaagtaccc agaaccctct ctaatcactc ctctgaatt 360  
tgctccgtg ggatcaaaga tatttgggtc ttttgtgagt tttctgaaga gcacggatac 420  
aaacgatgga actgagcaag catcggttgc tgaattgagt gccttggatg aacatc 476

<210> 4823

<211> 456

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068e07d1

<400> 4823

gaataatatt tttttatgat taccttataa caccatcaaa caacatgcca tgactttaat 60  
aaaagggtaa cacctctttt aaataataag ggctaaccaa tctaatactg accacgtata 120  
catacagttc aatagaactg agatgtaaca atgcctcact atcaataatc tgttcaagcc 180  
tgtaccttgg gggccccttc atcacttaca aattccaccg ttggggcttg tggggcacca 240  
aatgaatgtg cctagaacat aagcttagtg accacgaggg cctgtgccaa acataccgga 300  
acattcccat gtctcgaaat ggcccaatgc tcccacaaga acctacacat gggggggccaa 360  
actaagatcc actgaagtga catacctgcc taccatggct gggccacgga ccttgcaatg 420  
accactctag gactcaata caacaaccaa agcttg 456

<210> 4824

<211> 570

<212> DNA

<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220068e08a1

<400> 4824

tggtatttga aattaacaag tattaagatg tttggaatca tcggaggaaa caagggtcac 60  
aagataaagg ggaacttggg gattatgcga aagaatgtgt tggatatcaa cagcattacc 120  
agtgttaagg gtgtcatcgg aaccggcatt aacatcattg gaggagtcgt cgacaccgtt 180  
actgctttgg cgtcccatat ctccatccag ctcatatgtg ccaccaaggc tgatggacat 240  
gggaaaggaa aagttggaaa ggctacaaat ttaagaggac aagtgtcgtt accaaccttg 300  
ggagctggcg aagatgcata cgatgttcat tttgaatggg acagtgactt cggaattccc 360  
ggtgcatttt acattaagaa cttcatgcaa gttgagttct atctcaagtc tctaactctc 420  
gaagacattc caaaccacgg aaccattcac ttcgtatgca actcctgggt ttacaactca 480  
aaatcctacc attctgatcg cattntctat gccacaatac atatcttcca agcgagacac 540  
cggcttcact tgtcaagtca gagaagaaga 570

<210> 4825  
<211> 569  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068e08d1

<400> 4825

aaggacaacc cttgctgtaa tggaaatcgt ttacataaga tgatgattta ttctagtttg 60  
cactttgcca tgccagctat cattgttgaa acatgcgcga gaacacttaa cagcaattta 120  
tacaaacaga atttcttcat taacacttaa cagcaaacac gagaacattc aatcacccca 180  
aatacataac ttaaccatac ataggtagat gaaggaatca tattccttct attcactttt 240  
attgaaaacc agggaaagta ctgcaacaac catagagccc ctagatggag atactgttgg 300  
gaattcctct gaaagtcaat cctcctcac tagaaggata gagcaaagtg taaggcattt 360  
tagccggccc actgcggttt ctcaacgtct cgtccttggg cttctgtata agcttttggg 420  
caatctcttg aagcttcttt ccaaacctct tgaaggcctc tagtggacca gcatcagaag 480  
tccaatagtc accaccatct gtgttcccaa ggtagaactc atcagatgtg tgccttgaca 540

agatttctat agttgcaagg tcaatgagg

569

<210> 4826  
<211> 491  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068e09a1

<400> 4826

ggctcgaggg taagaggatg cgcattgcaa caaagctcac atgctgcagt ataagagcat 60  
tgctgaggcg aatgaagatg cattgaaaga gatagaaaag gcgcattgaga agttttaaag 120  
agaggctgac aatggaaaga aagttatgga atctgaactt aactcactta gagagaagat 180  
gttagagatt gaaaatgaat cttctttgaa atatgaagaa gttgcttctg aaactgttgg 240  
aaaggaagag gctcttacat ctgctatggc tgaaatcaca aatcttaaag aagaaatttt 300  
gaccaaattc tctgaaattt cagcaatgga aattcagatc tcaggtttaa aagaaaacct 360  
ggacagggag catcacaat ggcggtcaac tcaaaccaat tatgaaagac aaggtgttct 420  
gcagtgcgaa actattcacg agttgacaaa aacatctgaa gcactagcct tgctgcaaga 480  
ggaggcattt g 491

<210> 4827  
<211> 123  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068e09d1

<400> 4827

gtgatgcata tcgctagtgt tgaattacgc ttatacgtta atttaaatta tgccgtttgc 60  
aatcacaatt attgaaagtc agattcatga tcagggataa atgattagtg agagcatgtg 120  
ttt 123

<210> 4828  
<211> 532  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068e10a1

<400> 4828

ctcttcttct cttgcggcta gggtttttagc gcatcttctt ctagatttaa ggaagatggg 60  
taaggaaaag gttcacatca gtattgtggt cattggccat gtcgactctg ggaaatccac 120  
taccactggt cacctgattt acaagcttgg aagcattgac aagcgtgtta ttgagagggt 180  
tgagaaggaa gctgctgaga tgaacaagag gtctttcaag tatgcctggg tgctggacaa 240  
acttaaggct gagcgtgaaa gaggaatcac cattgatatt gctttgtgga agtttgaaac 300  
aacaaagtat tattgcacag ttattgatgc gcctggacat agggatttca ttaagaatat 360  
gattactggg acatcccaag ctgactgtgc tgttcttata attgattoga ccactgggtg 420  
ttttgaagct ggtattttcca aggatggaca gactcgtgaa catgctctgc tttcattcac 480  
ccttggtgtg aaacagatga tttgctgctg taacataatg gatgctacta ca 532

<210> 4829

<211> 492

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220068e10d1

<400> 4829

gaacactaca aatagaaagt tgacatttaa taaaccaaag caacacaacg cagcaaagtc 60  
ctgaaactcg ctgcgcttaa caaaaatgta atcagggggt cgcacaaaca cagcacatta 120  
aaacacagat aaataaaagc aattttgcca ccgtcgatca agaaccagtc tctgggaaca 180  
acagttgcga gatgatggtg gagacttcaa actttgtccg aaaaacaagc tacctagaaa 240  
agaagacaca agagtacaga agagaaacca acattttattg taaccaacat cccctgatga 300  
accagcccg acgattcact tcttcttctg ggcagccttg gtgaccttgg ctccggtagg 360  
atccttcttc tcaacgttct tgatgactcc cacagcaaca gtttgacgca tgtccctaac 420  
agcaaaccta ccaagtggag gatactcgga gaaagtttta acaaccatgg gtttggttgg 480  
aatcatctta ac 492

<210> 4830

<211> 483

<212> DNA

<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220068e11a1

<400> 4830

ctttctccta aaacatctcc agtgggttct tcttcttcta ttacaacaac gtcgtccaag 60  
accatgacca tggccatggc cacgacacctg ctctgttca cggctcttcgc ggtttcatcg 120  
gccctagaca tgtcgataat ctctgtacgac aacgcccacg ccgccacgtc ggcagcgcac 180  
gaggagctga tgtccatgta cgagcagtgg ctagtaaagc acggcaaggt gtacaacgcg 240  
ctcggagaga aggagaagag gttccagatc ttcaaggaca acctgcgatt catcgacgac 300  
cacaactccc aagaggaccg aacctacaag ctcggtactga accggttcgc ggatctcacc 360  
aacgaggagt acaggggcaa gtacttggga accaagatcg atcccaaccg gaggtctggc 420  
angaccccg gcaaccgata cgcgccacgt gtcggcgaca tactacctga atcggtgat 480  
tgg 483

<210> 4831  
<211> 457  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068e11d1

<400> 4831

aacagcaatc aaatatgttc gccatttggga attggaattt gaatacaaat acagtgcac 60  
aataatataa ccctatgtac acagccaata tctgactgaa atttgataca gaatagtatc 120  
aattcgtatc ataataaaat ggcacagaga aatttatgtg aaggtaaagg ggaagtgtat 180  
cagctggtgt ttttaattctt cgtctttcat ttacttcac 240  
gcacatttcc tttatctgct taagcactga tgaccttggg cttacgccca aaggccaat 300  
ggggttttagc cggagtacgc ctcaatgcct tcaactccgaa tgggttggtc ttgctcttga 360  
gacaagttcc agcataagtg ttgcagatgg gatagtcgat agggcagcaa ctgtagtggt 420  
catcacagca ggtagcacc ttaagaggac agcagcc 457

<210> 4832  
<211> 525  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220068e12a1

<400> 4832

tggccacctc tgctattcag caatcagcat tcgcagggtca aactgctctg aagcagctca 60  
atgagttggt ccgcaagacc ggtggcgccg gcaaagggtcg caccaacatg cgccgtaccg 120  
tcaagagtgc tcctcagagc atttggtatg gccctgatcg tcccaagtac ctgggtccat 180  
tctcagagca gattccgtca tacctgaccg gagaattccc cggtgactac ggatgggaca 240  
ctgctggact atcagctgac ccggaaacct tcgccaggaa ccgggagctg gaggtgattc 300  
acagcagatg ggccatgctt ggtgcacttg gctgcacctt cccagagatc cttgagaaga 360  
atggtgtgaa attcggcgag gccgtgtggt tcaaggctgg ttcacagatc ttctcgagg 420  
gaggacttga ctacttgngc aaccataacc tgatccatgc tcaaagcatc cttgccatct 480  
ggggctgtca ngctgcgctc atgggttttg ttgaggctac agagt 525

<210> 4833  
<211> 548  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220068e12d1

<400> 4833

agggacagaa atttctaata tatataatat aatggttctc atacagattc ttctggtaca 60  
caggtgtagg tacattagag aaaatgggag cagaagattg cattgaattg caatgctcat 120  
tgtccaggga caaagttagt ggcataagcc caagcattgt tggcaacagg atcagcaaca 180  
tggtcgtaaa ggttctgaat agggcccttg ccagtgacaa tggcctgaac aaagaaacca 240  
aacatggaga acatagccaa gcgaccgttc ttgagttcct tgaccttcaa ctcagcgaat 300  
gcatcagggt catcagccag accaagaggg tcaaatgcac caccagggtg gatagggtca 360  
agtccttcac caaggggtcc tccaccaact ctgtaacctt caacaaaacc catgagcaca 420  
acctgaacag cccagatggc aaggatgctt tgagcatgga tcaggtttgg gttgcccagg 480  
tagtcaagtc ctgcctccga gaagatctgt gaaccagcct tgaaccacac ggnctcggcg 540  
aatttaca 548

<210> 4834  
 <211> 452  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220068f01a1  
  
 <400> 4834  
  
 ggccaagtta tggcaggtac ctgagacact gctggatgag gtgcttggtta agatgagtgc 60  
 accacccaag agtgacatcc cactcattac cccaatgaa ctatccgggg ctgatggatt 120  
 agaattccgc tttccaacag ggattggaat gatggctgct cagattaaag cttttctaga 180  
 tgctactgga ggcttatgga gagcacaaca acttgcaggc aagcctgctg gcctcttcta 240  
 cagcaccggt tcacagggtg gtggacaaga gactacagct ctactgcta tcaactcaact 300  
 gggtcacat ggaatgatat tcgtttcaat cggttacaca ttccgagccg gcgtgtttga 360  
 gatggagaaa gtgaaagggtg gaaattcata tggagctgga acttacgacg gtgatggctt 420  
 aagacagcca agtgagcttg agatacaaca ag 452

<210> 4835  
 <211> 487  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220068f01d1  
  
 <400> 4835  
  
 actcaaactg gtcgttgcaa tgtttatgtg cttaacgggg caatacaaaa gataggaaca 60  
 agtactgttt ccgcctaaca cttaaaggact agacacaaac tttcctcatt caacaaattg 120  
 caacatccac tgcaacatgt aacactcata caaagcattt cctttaccaa gattagaaag 180  
 aaaaaaaaaa tacttgcaag cacaggaaaa aaaaactcaa tatatttcaa gtctaaaaat 240  
 tggacaatga ttttcaagca atattgtggt atgggttaat aataatagta tgatctaata 300  
 tgaaggcaag gcaacattat gcagcttgct tgagcttctt tgtgatgcca gcaatgtact 360  
 tcccttggtg gaatgcttgt tgtaactcaa gctcacttgg ctgtcttgag ccatcaccgg 420  
 cgtaagttcc agcaccatat ggacttccac ctttcacttt ctccatctca aacatgccgg 480  
 caccgaa 487



<210> 4836  
<211> 536  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068f02a1

<400> 4836

cttttaagtt aaatagtttt tcattgtttc atttaatcta caatggctgc ttcaacaatg 60  
gctctctctt catcatcatt ggctggccaa gctatcaagc ttgccccctc caccctcag 120  
cttgggtgttg gaagggttag catgaggaaa acagcctcca agactgtttc ttctggaagc 180  
ccatggtagc gccagaccg tgtcaagtac ttggggccat tctctggtga gcccccatcc 240  
tacctcactg gtgaattccc aggtgactat ggttgggaca ctgctgggct ttctgctgac 300  
ccagagacct ttgccaagaa ccgtgaactt gaagttatcc actccagatg ggccatgttg 360  
ggagccctgg gctgtgtttt ccctgaactc ttggcccgc aagggtgtcaa gttcggtgaa 420  
gccgtgtggt tcaaggccgg gtctcaaata tttagtgagg gtgggcttga ctacttgggc 480  
aaccaagcc tgatccatgc acaaagcatc cttgccatct gggccactca agttat 536

<210> 4837  
<211> 555  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068f02d1

<400> 4837

aatccaatta atgcgtataa ttaataatat aatgcgctct tgttgggtatt gcagctctac 60  
cacatctacc gaaatatata aagtgcacat acactacaaa actaaataaa gatctcaatg 120  
cacaataaga tatataattc atattcttct taaaagaaaa cattcaatat gtatttctcc 180  
aaataacaat gaaactctca ctctaatttt caagtcactg tgtttctctt tgtttcacta 240  
ttgctatgct cactttccgg ggacaaagtt tgtagcatag gcccaggcat tattgtttac 300  
cgggtcagct aggtgatcag caagggtttc caaaggctcc tttctgtca caatggcctg 360  
aacaaagaaa ccaaacatgg agaacatggc caacctacca ttcttgagct ctttcacctt 420  
caactcagca aaagcctctg ggtcatcagc aaggcccaat gggtaaagc tgccacctgg 480

gtagattggg tcagtcactt caccgagagg cccaccagca atacggtagc cctcaacagc 540  
 acccatcaag ataac 555

<210> 4838  
 <211> 470  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220068f03a1

<400> 4838

cgggtgacgaa aggaagaag aagaagaagc gttcttttcgg agagttcgaa gatgtcgggc 60  
 gttaccaaca acaacgagga agacaagaag ccaaccgaac agggagcaca catcaacctt 120  
 aaggttaagg ggcaggatgg gaatgaagtt tttttcagga tcaagagaag cactcaattg 180  
 aagaagctta tgaatgctta ctgtgaccga cagtcggtgg atttcaactc cattgctttt 240  
 ctgtttgatg gacgccgcct ccgagctgag cagactccag atgagttgga aatggaggac 300  
 ggggacgaga ttgatgccat gcttcatcag acaggagggt ctgttgctctg aaggatgtga 360  
 ttacctttgc tcttcattat aagtaggaat tagttaactt agagctatgt atggcataag 420  
 atacatattt tattatctgc tattatatac agcttttgcc ggtggatttt 470

<210> 4839  
 <211> 264  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220068f03d1

<400> 4839

aagagaagaa ataaaaaggt aaccggaaac tgcgaggaat attaattcca atagttcata 60  
 aaataaattc ctctaggatt ccaacctaaa atggctacaa ttgccatttt ggagccatga 120  
 gttcgaaccc tatgatcaga cgccactagc atataatcgg gtccattcct tcgcagtttc 180  
 gacagcctca ggctgattag attgccaatg ctaggcaatg ggctcagaaa gcggatcatg 240  
 tgggataggt gcacaaaata gagc 264

<210> 4840  
 <211> 112

<212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220068f05a1  
 <400> 4840  
 ttttagctat atatttttct ttgtaaaccg cgtaaattgt gcactatgtg ccaagggctcg 60  
 aatcgatccc ttcataaaac gccggaactg actacctaata tcgggtgccg tt 112

<210> 4841  
 <211> 498  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220068f06a1  
 <400> 4841  
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 ccttgacaga tccactgctg ctgcttcctt tggcatgtca gaaatgcttg gaaaccccat 120  
 caacctcagt ggtgccacaa ggccagctcc atctgcctct agccctgcct ccttcaagac 180  
 tgtggctctt ttctccaaaa agaaggctgc acctccaaaa aaagctgcag ctgctgctcc 240  
 tgccaatgat gagcttgcca agtggtatgg tcctgacaga aggatcttct tgcctgaggg 300  
 tctcttgac cgatctgaga tcccagagta cttgaccgga gaagtccccg gagactatgg 360  
 ttatgacca tttggtctta gcacgaagcc agaagatttt tccaaatatc aggcatttga 420  
 attgattcac gccagatggg caatgcttgg tgctgctgga ttcattctc cagaggcctt 480  
 caacaaatat ggagcaaa 498

<210> 4842  
 <211> 549  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220068f06d1  
 <400> 4842  
 ccaaggaaca aagccaaatg ccttaatatc tcagtatat gtattgtaca ttaagtaaga 60  
 ttggagaaaa acatgaagat gaatgattta gagagttgga gctctctcag cagatccaga 120  
 aatgacagtg agcaagttgt tgccaaaagg gtcactgaga tgttttgcaa gggtctcaac 180

aggaccttct ccagtgacat aagcttggaa gtagaaacca agcatggcaa acatagcaag 240  
tcttccattt ttaatttcct tcaccttag cagtgcagct tggctcggat catttgcaag 300  
ccccaatggg tcaaatggac cacctggatg aagtttgtct tcgaaattca ggccattaat 360  
aattctgtag tactctgcac ctcccacaag aacaatctca gcaatgacag ccacaataag 420  
attgatgggg atgggtttcc cgaagtagtt caaggtaccc ccatcaagaa gcagagctcc 480  
agtcttgaac caaacagcct taggaccgca gtttgctcca tgattgttga ggctcggga 540  
atgatgaat 549

<210> 4843  
<211> 524  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220068f07a1

<400> 4843  
aggaacagca tgtggccaaa acattataag actatatggc cgaaaagctt ggcatagaga 60  
aaagcaaaat tgatgacttg tccaacctcc tctacaagaa ctatggaaca actatggctg 120  
gtttaagggc aattggatat gactttgact acgatgaata tcacagtttt gttcatggga 180  
gattacctta tgagaatttg aaaccagacc cagctctgag gaacctcttg ctgagcctac 240  
cctataggag actgatcttc acaaactcag acaaagtcca tgcagttaag gcactaagca 300  
ggctaggatt agaagactgc tttgaaggaa tcatatgctt tgagaccctt aatcccatcc 360  
acaaaagcac tgtctctgat gatgaagatg acattgaatt tgtggggggg tcaggcacia 420  
ccaatccaac cacataaaaa gatgctagca gctntcaaat ctttgacatc attggccatt 480  
ttgctcaacc caatccccac acagttttgc caaagacacc catt 524

<210> 4844  
<211> 372  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmfl02220068f07d1  
<400> 4844

gaccatcaat gatctaagcc gtcacagatg tctccacagc acgcttgcca ggatctgccc 60  
 cttctgatat tatgtcatct ctccatagtc atggctctgg ctctctaatag ttgcggatgc 120  
 tacctgatgc ataatacatgc tcctgtactt ctatgagatt ttcctaccag ctacagggga 180  
 agaccacac gtacatcagc ttgtgtgtgg cggaccctat ccttaaagaa cataggtctt 240  
 tgccgagtaa cgttggatct cttgagggcc aactcagtgg catttaccga gggtagcag 300  
 atcatcgctg tctttgcaa aactgtgaca tgattggacc tgagcacaat ggccaatgca 360  
 tgcaaacatt tg 372

<210> 4845  
 <211> 521  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068f08a1

<400> 4845

ctcgcaagca aaaagaaaga atcccaggcg aggagaaaga tggaggggaa ggagcaggat 60  
 gtgtcgttgg gagcgaacaa gttccccgag agacagccga ttgggacggc ggcgcagagc 120  
 caagacgacg gcaaggacta ccaggagccg gcgccggcgc cgctgggtga cccgacggag 180  
 ttacgtcat ggtcgtttta cagagcaggg atagcagagt ttgtggccac ttttctgttt 240  
 ctctacatca ccgtcttaac cgttatggga gtcgccgggg ctaagtctaa gtgtagtacc 300  
 gttgggattc aaggaatcgc ttgggccttc ggtggcatga tcttcgcctt cgtttactgc 360  
 accgctggca tctcaggggg acacataaac ccggcgggtga catttgggct gtttttggcg 420  
 aagaagttgt cgttgcccag ggcgattttc tacatcgtga tgcaatgctt ggggtgctatt 480  
 tgtgggcgct ggcgtgtgac ggtttcgagg ggaacaaaa t 521

<210> 4846  
 <211> 488  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068f08d1

<400> 4846

cggcctgtcg tttttttttt accaacaaaa tatgacattc attccattta agatgggtca 60

tcagacattc attacacatg acatgggcct attgcaactt acaagcagag gataacattg 120  
 gcccatgacg cgacacatgc accacctaata aatcataatt ttacatcttt acatacaaaa 180  
 taaaaagact ttaaatttta aaaagaagaa aagagataaa cagatcatct taatgaaatg 240  
 aaacaaaaac ccacaaacat tggcttgatt tttgttggtg ttgttggtcc caacttgatt 300  
 aagcatgaac cgtttgattg aatcacttgg acttgaaggg aatggccctg attacgacct 360  
 ggtggtagag tgctgcaaga gctgcaccga tgaatggtcc caccagaag atccagtgtt 420  
 catcccaacc aaggctcctg ttgaagatga tagcagcacc aagactacga gcagggttga 480  
 taccagtt 488

<210> 4847  
 <211> 507  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220068f09a1  
 <400> 4847

ggtcctttct ctaatccaaa tatctctccg ttaatgctct caccacaaac ttcaatagac 60  
 tagccaaaag ctaacaccaa ctataggcca aatcaccaat aaatattatt tcccgttctt 120  
 ttggcgtgtt ggccaccac tgaacacatt tgcactcaca catagaagca gagagaggcc 180  
 attggttggt ttcagagatg ggaagcatgc acatagaaac ccagaaact tttgctgatg 240  
 gtagcaaaaa cttcgatgat gatggacgag ctaaaagaac tgggacttgg attactgcaa 300  
 gtgctcatat cataacggct gtgattggtt ctggagtgtt atctcttgca tgggcaattg 360  
 cacagatggg ttgggtagct ggtcctgcag tgctctttgt cttctctttg ataacatact 420  
 tcaccttcac tcttctcgct gactgttacc gttcacctga ccctgtacat ggcaagcgaa 480  
 actacacata ttctgagggt gtcaaag 507

<210> 4848  
 <211> 542  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220068f09d1  
 <400> 4848

aacatagcaa actaaacatt ttattatatt acttttagtat aacaagttgt ctcgatttcg 60  
 agaattgaaa atataacaac tatttcaaaa catagtaata caaattttgt cgcctcaat 120  
 agaaactctt ggctcaagtt ggaatactaa gtatgaaagt tctattgttc tgcttggaag 180  
 ggcttgtatt tcttgatact aaccgaaagg ccttggaagg aaccacaag tgagataata 240  
 gaaatgatca agcaaaccce actcaatatac ttgagccaag tccaggtgaa ggaaaatctt 300  
 tgcataattg acttcttaat gtacatctct atagggaagt aaaccgtcaa tggccagaaa 360  
 gagagtgcac caataagggc caaaaagtca ttgaagaatg ggagtaacat agctacaacg 420  
 gcagtataa tcacatatgc aggccttcac actaccctaa agaagttcac attggagctt 480  
 tcacatagag gaatgttcaa agtatgctcg gcatttataa attggctttc tgtccatttt 540  
 ct 542

<210> 4849  
 <211> 586  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220068f10a1  
 <400> 4849

catccagaaa gctaaatgac ctaagcaaga gacgatcaga agaaaccatg agaatgaaag 60  
 agatcatttc taaggaggag aaggcaaaag aattagcaaa actagaaaga gagaaatatac 120  
 aagatgcatc acgagaagct gaatatttga aagaatgtgc tgaaagagaa gcggcagata 180  
 agaaagaaat ggagttgaga gccattcgtg ctgcaaaaga gaaagaaaag ctggaggatg 240  
 ctctcagtgg ttccacgccc cagtaccgga agtttacatg ggatgaaata atcttagcta 300  
 cttcatcttt ctctgaagat ctgaaaattg gaatgggagc gtacggagta gtatacaagt 360  
 gcaatttgta tcacacaact gttgctgtga aagttctcac tctcaacact aacgtaaaca 420  
 gcaaaagaca gcaattccag caggagttag agattatgag cagaattcgt catccaaact 480  
 tgcttcttct tcttggtgca tgtccggatc atggatgcct tgagtatgac tatatggaga 540  
 atgctacttg gaggacagac tactacgaaa aaccacactt ccccaa 586

<210> 4850  
 <211> 519  
 <212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068f10d1

<400> 4850

ctaaaactaa ggtatgtatt caggaggata tatcattcat aaataaaaga gtacacatga 60  
atgtttatac attagctagc cttgaatgta tacatggttc ttattttatt tatagtaaga 120  
acaagatttg acatatgtat gtatacacag aatcagacaa tagaatcaaa tttatctaca 180  
cttgaaatcg ctctacctaa attaaccaga cagcatgctt ggaatggtag aactacgaaa 240  
aaaatctgca tccaagacac tgctaaaggt cataccacc aaactttcta gccactctct 300  
acatcagaga aatcattggc ctcaatatta acatggagaa agataatgct gatatcacga 360  
ttctctggac ttccactcca aaattgctga gagcagtgtg taattaggaa ttaaagtctt 420  
atgaggtaaa gccatgttcg tcattgggtga tttgtcgttc tcttcaagcc acttttcaaa 480  
ttgctttgag atcatatgta tatccatcag cagcaaac 519

<210> 4851

<211> 528

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068f11a1

<400> 4851

tgctctatct tgatctagcg tgatttattc ccggatcgac gcgcttcggc tcgagaaaca 60  
attctaacat acttttcttt cttttttttc ccctctttaa aagtctggct tttggctcct 120  
tgattcccaa cttcacttgt cacatatcat attatgaagc tcacagggtt cctgcaagcg 180  
gtgactcttg ctttggtggt agccaccgtc tctgcatcag atcctgatcc tcttcaagac 240  
ctctgtgtcg cagaccttgc ttcagcgggt aaagtgaatg gattcacatg caaagatgct 300  
gccaaggtaa atgcgagtga tttcttctca gacatactag ccaaaccagg tgccacaaac 360  
aacacctatg gctccctagt gactggagcc aacgttcaga aaatcccagg actcaacacc 420  
cttggcgtgt ctttatcacg cattgactat gcccagggtg gcatcaacc acctcacagc 480  
caccacgtg ccaccgaggt agtgtttgtg cttgaggagc actagatg 528

<210> 4852



<211> 423  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068f11d1

<400> 4852

atactctaatt tccaaaactt tgaatttatg agtgcccaac caacatgaat tgtaaagcaa 60  
caggaaccag gacaagagag gaagggtgtt gatgtaacaa cagagagaga gacattacaa 120  
ccacgtccca cattacgtat taataatccc ttaggagcaa gcctagactt gatgggtcttc 180  
aacctccttg gttcccacct ggaacgcctt ggtataacac attgtctgga accggaggtg 240  
atcctgcaaa caacgttaga gcaatggact gagtgccaaag caattgactg atgaatgctg 300  
caattactga agcttgctac ttgacattgg ccttttgga gtgaaccaac ccttttgga 360  
acacaaatat tatagccttg cttatgctct ttgatatgat cgcgccaggct gaggatatga 420  
acc 423

<210> 4853  
<211> 491  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068f12a1

<400> 4853

gaagaactgt taaaacatcg catgcttaag ttcagaaaga ttggtggatt ccaggaagggt 60  
attcctatag atcctaagag aaaagccaac atgaagaaga gggatctatc tattgctaag 120  
atttctgatg ctgaactaga agttgaggtt gagaaactga agcaacagggt tttggaagct 180  
aaggaatctt ctctgttcc tgcaaaacta gatctggatg agatgctaaa gcaactgaca 240  
agggaggttg atctagaata ctctgaggca gctaaagcca cgggcttgac agacagtttg 300  
ttgaaactaa gggaggaagt ttcaaaagca aatgcagata atcaaattgc tgatccattg 360  
ctgaaggata agatagaaaa gctaaggggtg gagtttgaac agcaactgcg tgcagctccc 420  
aattatggca ggctgcagaa taagtctacc tatctgagcg aattatgtaa agttaagctt 480  
ctggcagatg c 491

<210> 4854

<211> 449  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068f12d1

<400> 4854

acttacagca ccaagcgtcg ttgaatgact cggaacgtct acctgaaact aattatacac 60  
tgtatagata aagatattga gggagaaacc gaacatttga agatgagtaa ccaagagcat 120  
aatgatcatg aaaagaaaag aacataagat gacatcctaa acataactgc cacattgtga 180  
ctcacacaca tacagaaggg tattcaatgc tagaccccg c tactgggcct ttattggcag 240  
agtattgact gcacattggc caccattaac accgaatgtg cttaaaatga ccaaacatgc 300  
atctaagaag tatggcgatt ataatactag aggatgatct aaatctagag tcaccaatcc 360  
tactgtatgg ttctgaatca tgcgtctctc cagccttagg aaccttcaat ttcaattgca 420  
tggcctagct cttaatatca tgcgatgag 449

<210> 4855  
<211> 306  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068g01a1

<400> 4855

gggtgcctaa gattttttat gttaaatgct acatggcaca ataggaaagg gcaaatagaga 60  
atataattat ttgaggttcc ggtggccaag tttgaaccac cattacaaaa gcatagaagg 120  
agggtgttca ttgtaaaaat tgtaatttat acatttgttg tgaaagcgac ctctgcaaaa 180  
tcttttgagt ctgaacctca agcttttgat ccaaaaagca ttctggactc tgtcaagaat 240  
tccgtggatg ctttctacag gttattcaga cctcacacag ttattggcac agtaataagc 300  
ataatt 306

<210> 4856  
<211> 435  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068g01d1

<400> 4856

accattaaaa caaaaaacag tactcatcaa aaacaaacag cagtgaaaat tgaccaccgc 60  
cgatcaagaa cctagttttg aaagttacgg ctacatgaaa tcggcagaaa cttaaaaata 120  
taacttaaac aaaacaccta agactctgca aggataaaac tactataaag gagtaaccac 180  
gatgatgatc acatgtgcta gcaaaattgc ccaaagtgcaa tcacttcttc ttggcagcgg 240  
ccttggtgac cttggctcgg gtgggggtctt tcttctcaac actcttgatg actccgacag 300  
ccacagtttg acgcatgtcc ctcacagcaa aacgaccaag gggaggatac tcagagaaaag 360  
tttcaaccac catgggcttg gttggaatca tcttaaccat acctgcatca ccattcttca 420  
aaatttgggc tcttc 435

<210> 4857

<211> 485

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068g02a1

<400> 4857

atcagatggt catgctcctt ctttcattaa attaacggta gagatcccat aaacaagtca 60  
atTTTTTTTgg agcaggaaga gattTTTTTTT tcttttcaat tcgaattatt cattatctat 120  
gaaaagccct tgacttgtgc ataccaaatt caaaaattgc tatgtgatat cgacatttct 180  
ggctagtggc tacaaaatct ctgtaccaat ttatgaacag attctaggta tggaaactct 240  
atcatatggg tcagcaccat gctgccaaagc tgtgaactca cagtgggaagt cacatgaaaa 300  
gagtttgagt ctacgtcaat cacagagttt cctctatagg aaaacttgga gtttattaca 360  
catgaactat ttctgcatgt gcgcctgtga gattttatga gatgggtact aggggtgcagc 420  
taagaatctc aaagagattc aatttcaagg attgtagagg aagttctgat gatggatatg 480  
tgatt 485

<210> 4858

<211> 501

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068g02d1

<400> 4858

aacataaatc atctttctgag taatagttgt tcactagcat gctctcttgg tgagtaatta 60  
taggtatatt atatatacaa gattttacct atgattctaa agcatttgtg catgacttct 120  
ctttatacaa actatgacag agatgacagg ctacaacgtt gatttagtat tgaagatgcc 180  
atatgattca ccctgtcatt gatgtttggc tgccagaata ttactgaact tggattgaga 240  
tctgatgaaa gatcttatcc tgtcccaaag tgagaaattg gaagcgaaat atctgaccat 300  
cactgacttt ttcgaacctt gtctgggaaa ctctaaatcc ctgtcaataa tagaatgctt 360  
tatactgtct agatcttcaa gcattggtaa tgacacataa ccctgagact ctaggtttct 420  
gatgcacccg cgacgtaaga aatttatgat ctcacgaact tcatcatgag ggcagtgacc 480  
aacatggctg attcgatata t 501

<210> 4859

<211> 501

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068g03a1

<400> 4859

gagaaagtgg catcgcttag gtacagatac agacacaacc tggtaaaaat cccgacccca 60  
gtgccgcaca attttccttc actcgcagcg gaggtttact tttgatctag tacctgctat 120  
ccctatgtat aagcatggac ttctagcata ctattgtttg attaaccaag ttcttccata 180  
ttggttgagg aagcctcgag tcaatattta gtttttgctg ccactctgtg gtttctgatg 240  
gatgatgccg ggcacgtga aaatggaagg cacaagcag cagatcaata taaatctgct 300  
cagggacagt ggttgatgca acatcagcct tccatgaagc agattatggc aattatggct 360  
gaaagagatg tagccattca agaaagaaat ctggccattt ccgagaaaaa agcagcatat 420  
gctgagcgcg atatggcatt catgcagcga gatgctgcaa ttgctgaacg taataatgca 480  
attttgaac gagataatgc a 501

<210> 4860

<211> 450

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068g03d1

<400> 4860

gaaacaagga aaaaattaac atacatagtt gattttacat attaccgcat agagggtcca 60  
ggatgactga ggacacgagt ctacaattat tcagggttaa ggactacatg cattaaccca 120  
gactatctaa caagtattta tccatcccat catgcacact ttctatccat gccattggcg 180  
ccatcaaacc atctaagaaa attaagtgcg tacaaatgac caacgaggat gactttaaca 240  
ccaggcttat gcacctaata tatagcaggg gcatactcta atcattacct ttcccagatg 300  
acctttacac ttacattatt tctctcattc gacttgagaa tccataattg atcgctaaaa 360  
gctgaccta ttcatgtaat gctgccccac aaacaatttc tcatgctgta ctttattgtg 420  
atgtaacggt tcgttccatg ttttgcccaa 450

<210> 4861

<211> 274

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068g04a1

<400> 4861

taattctaca aggcatactt cttgtcacat aaagactcgt cattatttat gttgttagaa 60  
attattattg tgtacaagta caactacaca tcgtgaaagt gattcaaaag tttgctgttt 120  
ttcttttagtt tggaaaaaaa aaactgtgct ctatgtatct tagatcttga gaaatttcag 180  
ataaactcgt ttgtaaacca ttttataata atagagaaat gtttgcttat tatcatccca 240  
aaaaaaaaa aaaaataaaa aaaaaaaaaa tagg 274

<210> 4862

<211> 241

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068g04d1

<400> 4862

gatgataata agcaaacatt tctctattat tataaaatgg ttacaaaacc agtttatctg 60  
aaatttctca agatctaaaa tacatagagc ccagatTTTT tttccaaac taaagaaaat 120

cagcatactt ttgaatccct ttcacgatgt gtagtagtcc ttgtacacaa taaacatttt 180  
 taacacccta aaaaatgacg aggtcttttt gggcaaggaa aaatccctgg aataataact 240  
 a 241

<210> 4863  
 <211> 478  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068g05a1

<400> 4863

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 agaagacgca ccctccccag atgcctctct tctccagaga gtcttgagag tgatggtgcg 120  
 cagaaagatc ttcagtgcac aagaatcaga gacaggagaa accctcttcg gcttgacacg 180  
 agcctcgaag tggatccttc gcgacacgaa aatgacccta gcacccatgt tgctgctgga 240  
 gaaccacca attcacctga accctgcgca ctacatcagt gagattatta gagaaggcac 300  
 aaaaaatggc actgctttct ttaagtgcc aaggacatgag caatttgaga tgacgggttt 360  
 ggatcctgag tataataggt tgttcaatga gggcatggtg tgcactgcta ggggttggtc 420  
 caaagctgtg atcactggct acaaagatgg gttcaaccag attaagtcct tggttgat 478

<210> 4864  
 <211> 479  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068g05d1

<400> 4864

aacaccaaag gatctgattc attaaaagca atagattctt cacaaccaca caccactcac 60  
 ttgacatata tggaacacat acataatcca tatagcatta cttaggggtg gggcatttct 120  
 tactttaatt taatgcccac acataacaag ggcaggaagg aaaaccacaa aattaaaacg 180  
 aagatcatat agctgttaat aataacaaca acacatgcaa cataaaaacc acatgcagtt 240  
 gtggtagtgg catcttcttc aaattggaaa cgcctcaatg atggaaggga gagcgttgat 300  
 cttgatgatg ttgtaacgag cgaaaccggt ttccttgaac agccacttcc agttctcttc 360

ggacctctct ttgccaccgg cgttgtgagc gagaagcatc atgtcgaatg cgatgccaac 420  
 gtttgtgaag agttcgttgc cttgggggtcg aagaacgtga tccacgatta tgacttttc 479

<210> 4865  
 <211> 529  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068g06a1

<400> 4865

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 ttgaatattt ggttgggttg aatccctggg ttgaagcgtt gcagacatca cggctattct 120  
 aagagtgtct cgctctctca ttcattgtccc aactgtacga cggaggacag gttgcgtaac 180  
 tgccaccaac ccttcgccgc acggtgggcg tgggtgcttg ccttctgaag gtggtagccc 240  
 ttcagacttg ctcttcttag ctggtggtgg ttctgctgtc ttctagcttc ttcttaactc 300  
 ttttttcttt ttactacttt taagctacct tgttttcaaa ataacaaaaa caaacacttt 360  
 cttacttcat aagatcacct tttcttcac cttacttct ctttactaa aatgatgtc 420  
 aaaatcaaga gggttccac tgtcgtttcc aacttccaaa aagacgacgc tgcagactct 480  
 cctcgtcccg tcggagggtg tggtcggaat tgccttaaag cttgttgca 529

<210> 4866  
 <211> 509  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068g06d1

<400> 4866

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 gtcaagtcaa gcattatgat acatcagacc ccaaaatacc aacaacacta ctcagctgag 120  
 cagttattat atcgtacttt cacatgaaag tgcataaag gcagataaaa gcatatacat 180  
 tcaacacaca cgaccataag gctcaagcac aaggcaatag tatgacttaa acggtgacac 240  
 atttcagcaa ttattcttaa aactctgcag attttctgaa tttgttcaaa atacaagagc 300  
 cttgttactg tagaaccaca cattcttgtg aaccagccac caccaccaca gtaggggtgtt 360

cgcttgtgct gactgcatca acttcttttt tgacactttg aacattgaca tcctccaatt 420  
 caccacagcc aatggcttca aaaacaagat cattgacttc ttgaaacctc tcttgagaaa 480  
 gggacacctc agcaagaagc ctccaagca 509

<210> 4867  
 <211> 601  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220068g07a1  
 <400> 4867

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 tctcagcagc agatactcaa ccctgtttga gtagccgaga ataacaccaa tgggagagga 120  
 ggaaaagaaa ccagaggaac aaccaaggc agaggagaaa aaaccagagg aagagaagaa 180  
 gaaagaagaa gcagcagcag cggaaaaacc aagcgaagag aaaaaaccgg aacaagagtc 240  
 gaaagaggaa gttgctgctc cgccaccgc accgccaccg gccgagattg tgctcaaagt 300  
 gttcatgcat tgcgagggtt gcgctcgcaa ggttcgtcgc tccctcaaag gattcccagg 360  
 tgtcgacgat gttgtcaccg attgcaaadc tcacaagggtg gtcgttaagg gagagaaagc 420  
 ggatccgttg aagggttttg agagaatata gaggaagagt cacagacagg tcgagcttct 480  
 ttctccgatc ccgaaaccgc angaggagaa gaagggtccan gaggaagaaa agcccaagcc 540  
 cacaccgaa gagaagacag aagaggctca gattgtgatg acggttctga aagtggcatg 600  
 c 601

<210> 4868  
 <211> 417  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220068g07d1  
 <400> 4868

ctggctcttg cttcattatc actgcgtgct ttccggttct cttgtacacg tactcaacca 60  
 actttgctgg atcgtacacc cccttcacgc tcacttgtga gttctgcaga tcgggttctg 120  
 ctgattccac tcccttcatt ctctgtatgc gtctcttgat ttcttgagag caagcttcgc 180



agtgcatgcc aactttcaga accgtcatca caatctgagc ctcttctttc ttctcttcgg 240  
 gtgtgggctt gggcttttct tcctcttgga ccttcttctc ctcttgcggt ttcgggatcg 300  
 gagaaagaag ctcgacctgt ctgtgactct tcctctgtat tctctccaaa accttcaacg 360  
 gatccccggtt tctctccctt aacgaccacc ttgtgagatt tgcaatcggt gacaaca 417

<210> 4869  
 <211> 100  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068g08a1

<400> 4869

ctcgagccga atcggctcga gcgcttagat atactctggt atcatcaggt gttttctcca 60  
 ggggtacaagg agatgatttt cttggattca gccccataca 100

<210> 4870  
 <211> 215  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068g08d1

<400> 4870

agttattggt tactctaagg aaatctagaa atcttacctt attataggaa tgaagatgac 60  
 tagagaaata tttgtatttt atgtgtacaa aagaaaaaca gatgagacga ttaaagaatt 120  
 actgcatgac tagccagaat gggcagaaag catgggggcta caaaatggac ctacaacatc 180  
 tggccaagc ccaagcttta tgcaaaaggc cgaag 215

<210> 4871  
 <211> 600  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068g09a1

<400> 4871

aaagggtcaa gagatgaggt tgatgagtct ggtaagtgtt tgagttggtt ggacaagcag 60  
 ccaccttggt cagtgttgta tgtttctttt ggaagtgggtg gaacactctc tcagaaccaa 120

atcaatgagt tagcctcggg tttggaattg agtgggtcaaa gggtcttggt gggttttgaga 180  
gcaccaagta attcagttaa tgctgcttac cttgaggctg aaaaggagga ccctttgaaa 240  
tttttaccaa gtgggttttt agaaaggaca aaggagaaag gtttggttgt gccatcatgg 300  
gcacctcagg ttcaggttct tagtcacaat tcagttggag gggtcctgag ccattgtggt 360  
tggaactcga cattggagag tgtgcaagag ggagtgccta taatagcatg gccactcttt 420  
gctgagcaga gaatgaatgc agttatgtta accgatggac ttaaagtggc gttgaggaca 480  
aaatttaacg gtgatggcat agtggagaag gaggaaattg cgagggtgat acagtggctg 540  
atggaagggtg aagaaggtaa aggatgcttg aagaatgatg aatttaaaga ttctcttgta 600

<210> 4872  
<211> 273  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068g09d1

<400> 4872

gaaaaccatt tggaaaaaat tttattaatg tattcctaaa gcaagttgta atacacgagt 60  
gtatactgtc acgaaatttt tggcagacta aactagtcac gactttttacg gggaagctaa 120  
tccatctcta cagaaacaga ggtaccttaa tcatccaact ctgccatttg gggagcattt 180  
aaaggcaaaa actggttacc agagaaggct taaaggttac caattgcaaa ccgaaagaaa 240  
aaagggttgg ttacgaaaac ccagttttc aag 273

<210> 4873  
<211> 465  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220068g10a1

<400> 4873

cgcaaatacg agaaggaaca aaacaccgcg gaagcaacca tggccgaagc agaacacaac 60  
gatcccacct cgccggagcg cgagggtcaa accaaaagca acaagaagaa actccgcaag 120  
aggaaaaggc ctcacaagac cgagcagaaa cgagatgagg acaagaacga tgctaacatt 180

gatagtgtccc aaacacaaac cgaagatgaa gaagaagaac aaaaagaaga agacacaaac 240  
aactttctcat ccggaatcat gagcaccgag tctttctcct ctctgggctt gtccgaaccc 300  
acttccaaag ccattgcgga catgggcttc caccgtatga ctcagattca agcgaaggca 360  
attccgacgc ttctgaccag gaaggacgtt ctgggcgcgg cgagaacggg tgcgggaaaa 420  
accctagcgt tttagtatcg cggttgagtn gctgtacagc attca 465

<210> 4874  
<211> 238  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068g10d1

<400> 4874

gtattacagt ttgtccttgt ctgttatttt cttttaatt actattattt tataacataa 60  
taaagaacaa acaattaaag aagttgaaaa catatgtaga ccctaaacgg aaattacaga 120  
caaggaagaa gaaactaact tcttgctcgt caaattgtct tgagtaggat ataaagaaaa 180  
tgtaggcgct gacgtctatt ctactctcat cctgtactct aagggcattg acgtcttg 238

<210> 4875  
<211> 531  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068g11a1

<400> 4875

tgaagtactc tgggatagt atgcatactc ccgggtcgac gcgctcactg atcgagagaa 60  
aatgaaagtc cttgttttct ttgttgctat agttctagca gcatggcatt gccatggctc 120  
agaccatgac catgaccatg gccacaccta ccaaattttc cctctgagaa tgaaaactgg 180  
ccatggtggc cactacattc cggaggtatc atgccaaagt tggaggcttg gtgtggaagc 240  
acacaacgtc attgactgga aaaccgttcc tcaagattgc gagggatata ttgggaacta 300  
catgcttggc gaacaatata gatcagactc caaaatagtt aaccaacaag cttatttcta 360  
tgctaaaacc ctcaatatca ctgccaaaac cgcattgggtg ttcgacatag atgagactac 420  
actctctaata ctccttact atgctgacca tggatttggg gtggagttat ataataaagc 480

atcgtttaat aaatgggttg accttggcga ggcaccggca ctgccagaga g

531

<210> 4876  
<211> 396  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068g11d1

<400> 4876

aaaaaaaccc caaaagaaaa aaccccgggg gggttggaca ggtttttacc acggggcctt 60  
tgggcccaca caaagggccca tacctgggaa ttaaataacg gggggcccctg gggtaaaggc 120  
gatttctcca tttttccaac ggggcttttt ttttattcaa gggaaccggg ctaaaagagc 180  
cctaaaaacc ccaactaagg ggggaccggg gaacagggca cttaaggggc ctatcgccgg 240  
gggggggtcc caaaagaacg ctccatgggg cccaagggt tccaaaggat tgggaacctt 300  
tttccccag gttttttttt tcaagaaaat tggcaggaaa ggggggttaa cccggggttt 360  
caaagggttt ctggggaaat aacttttccc agggggg 396

<210> 4877  
<211> 636  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220068g12a1

<400> 4877

gattggccta gccagtagta gccaatgttgt tggagctggt tgggaatggc gtcgaaaccg 60  
aaatcaaag gaaattccaa atgcaacaaa ggattcgctg acagctatat gctgttgaat 120  
cctgaagacg ctcatcttct cgatcttggt catgtgctgt attcccgtaa cttgggaaac 180  
cgaaaatttg tggacagcaa tgctgaggga tcttatgagg gaagcttccg ccaaagatgg 240  
cttatattcg tctctgtggt gctccagaag cttctgttgc tcatcgctaa gccactttcg 300  
ttctttggct cttgcgttga gttcttcac aacctccttg tctcaacgg tggcttcac 360  
atgatcgta ttaacttcct cacaggcac ctggctgctc ccgatcgtaa tgcaccaa 420  
tatttgcctt gcatcgaaa tttggacgag agagtaaagt tggatgccat cacgcgtgat 480  
gactgcaggt actatngtgc attagctatg atggcttcaa ggcatcctat gagaatgcag 540

cttaccttaa atctctaata aaaaccactg gaagatggac tccgtgagat ttttgattgc 600  
 tggatgattt caagaaaagc cccaccaag tttgat 636

<210> 4878  
 <211> 516  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220068g12d1

<400> 4878

gaaataaaca aacttcacat tgatctcatt aatgataaat ccatgcacca aaggaaacaa 60  
 ctttaaacct agcttattaa ttactataca ataactcgta ctgacgacaa actgttatat 120  
 tattcatgat cattatgata cataactatt cttcacatga tacataatca agtgttatta 180  
 ccattttttc taaaactaaa aatcttgatt atgtaaattt tagtctgcat gaccatacac 240  
 atgtacgtag tggatggaa tgatcatgta tacggacaca tcaatctgct ttaaaatggt 300  
 tttcaattga tcccagaaga gtggaattaa tataatcttg tggaccgtga gcaggtaagc 360  
 caggaatcag cagaccaacc aacctgaaac taaagagaaa ccaccttct ctatagtgc 420  
 gtccattttt gtacgctatg gtaaagctcc ttattagttc caaaacagca ttgaacatca 480  
 tgggtatcac acaccatggc gagaaatagt tcttat 516

<210> 4879  
 <211> 482  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220068h01d1

<400> 4879

caaggtaaaa attttattgc acaatgagaa ggcagagaaa attgatgggt ctgtttctca 60  
 gtacaagttt tagaatgaaa aatgaagcaa caagtgttg tagtggtagt agtagtagta 120  
 gtaagcatab aaaactacaa tggcatggta catacatata ataattgaat taccaattca 180  
 gaatttgatg gctctcactt ccacttggtg gcaacaatgt cagccaaatc cacaaccctt 240  
 tgggagtagc cccactcatt gtcataccaa gcaatcacct taaccatgtc atctcccatg 300  
 accatgggtca acgatgagtc aacgggtgag gacacatcag tgcacctgaa gtcaacagac 360

acaagtggct catcacacac agagaggatt ccttggagct cattgtctgc actctctctg 420  
aatgctgcat tcacttcttc tgcaaaggct ttctttgaga cctgaacaac gaggtccacc 480  
ac 482

<210> 4880  
<211> 550  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068h02a1

<400> 4880

cgcgctagct aggggttcat tctcaccac tcccaacaat ctccaatag aatgctgaaa 60  
gagaattgct gattatcgct tcactcaact ctaccaaata gcactactga ccaatctggg 120  
ggagccgatt ccacagtata tgacatgaaa ccgtgcttgc ggacaaagcc tcttcttctt 180  
ctgctctctc tgctacttct ccacaacatc acattcggtc tctccgatga ttccagcagg 240  
aaaaacacct tccgcgagcg cgaagcctcc gacgactccc tcggataccc cgaaatagat 300  
gaggatgcac ttgtgaattc aaagtgtccc aagaatttgg agctcagatg gcaaacagaa 360  
gttagttcca gcacttatgc aaatcccttg attgctgata ttaacagtga tgggaagctt 420  
gagattgtgg ttccgtcttt tgttactac cttgaggttc tagaagggtgc tgatggggac 480  
ataatgccag ggctgcctgc tttccaccaa tcaactgtgc attctagtcc tcttctatat 540  
gacattgaca 550

<210> 4881  
<211> 504  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220068h02d1

<400> 4881

ggagagaact gtgtattaat tataaatatc tattttgatt caataatgga aaaaagtata 60  
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aatcccgcac ttaaggatc attcactctg ttgcaatctt cgactatctc taaagtaact 180  
ttagctgaac taatttttca gcttgtaaaa gattgctcca actccgtgat caaagttcac 240

cgagcagcccc aaggcatata tcataacaga ttctactcaa ttgacataa aaatattcac 300  
 attttctgaa ctgagtatat gaaatagagt aatcatcatt aatcattggt ccttgaaaaa 360  
 gatggcaatg gcattgagcc ttgtgggcca aggattacaa gcacacccaaa catcccaagc 420  
 attggaagaa catgatgcca cttcaacagt ttatagtagt gcatatggaa tgtaagagag 480  
 aaatcatcag agaaatacag tcca 504

<210> 4882  
 <211> 499  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220068h03a1

<400> 4882

acttcattaa ccaaaatgga ctgctccatc aacttcaca agctccaaac aaagaaaacc 60  
 acgaaacctc ggaacatca tccacagctc cgaaagatcg caaacatggt gcgttacgcg 120  
 gagttgtgcg ttgttctggt cttggtttcg aggctctcca tcaacctacc ctacacaacc 180  
 gagtgtttcc gcaacttcac gggtagccct cgcttcgttt ttctcctggg aaacgtcatc 240  
 atcataacgc tcttcgcaca atctggccac ttttcatctt cagccaaacg tgccccagaa 300  
 cctgcagatc tctatctcga gttcctccaa aacaccacca ttcacagaa acttcaagtc 360  
 cacgtcagca aaccaaagcc aagtgcgaga gtattggaga gtgttataat aaagggcacc 420  
 aaaactgcag agactggttt ggaggtgaag aaggattata gaaggtctaa atcggatatt 480  
 gttgtgaagc gcgtggaga 499

<210> 4883  
 <211> 459  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220068h03d1

<400> 4883

ataggatcaa tcaaaacatt attttactca ctttcattta atctatacag tacatacatc 60  
 acatattttg tttgtttatt gattaaaccg aagcaatagc actgcatgtg tatagttttt 120  
 tcacttttga ccccaatagt agaaagcaat aatatacaga catttgagtt tttttatatt 180

ttttttacca atactcatag tcctatactc ctattaatta attacagagt tctgtagttc 240  
 gtagcctctg ttggcgagca atgaaagcct caaccttgcg acgaaagtcg tcgttgctca 300  
 tgccatcttc agggtagcag ttattattaa caagaacttt ctcagtctca cacctctgca 360  
 acacgcgtgg aggcaccttc tcaactctcca cgcgcttcac aacaatatcc gatttagacc 420  
 ttctataatc ctttttcacc ttcaaaccag tctctgcag 459

<210> 4884  
 <211> 515  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068h04a1

<400> 4884

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 ccaagacgag cccttatgga taatcttcgc aagagacatg gtgatccagc tgaaggagga 120  
 gcttctcatg aactccttca agaccatcga cggaagaggc gccagcgtgc acgttgctgg 180  
 ggggccatgc ataacgatac agtacgtgac caacgtcatc atccatggga ttcacattca 240  
 cgattgcaaa cagggaggga acgctatggt gcgggactcc ccacggcact acgggtggag 300  
 aaccgtgtcg gacggcgatg gcgtgtcgat cttcggaggg agtcatgtgt ggatcgacca 360  
 ttgctcgctc tctaactgta acgatgggtt gatcgacgcc atccatggct ccaccgctat 420  
 taccatttct aataactaca tgacgcatca tgataaggtc atgtttgtgg gtcacagcga 480  
 tgcttacacc caggacaagg ccctgcaagt cacta 515

<210> 4885  
 <211> 526  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068h04d1

<400> 4885

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 cacttaagct agaagccctt gcatagctag aggaggctcc agcacccgat gatgtgaaaa 180



acgcaccggt tactaacaag tccccctctg acctccaatt ccaatcctgc cactcactct 240  
 ctggcgcatc ttcacgtttt gtcacctctt tgctgaatct gtcacgggt gcaacaaacc 300  
 tattgccttg gcagttgatg gttggattag cacttccacc aatggcatac attttccagt 360  
 gagtataatc attgttcacc acatggaaat acccaagcct acaccttggc atcctttgaa 420  
 caaggccttc accaaagtgg ttgaaagcaa tagtgacttg catggccttg tactgggtgt 480  
 aagcatcgct gagacccac aacatgacct tatcatgatg cgtcac 526

<210> 4886  
 <211> 511  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068h05a1

<400> 4886

agattatggt attgtgacca ttatcttgac aaggtaagag gatatatgga gtatttttca 60  
 tatttatatg atgtacacac aaaacaaggc caatgagagg aagccactta taggttggga 120  
 agaagcagct tcaattcaga gagtgagtgc tttttctctg gcccatgaga ttccatggct 180  
 tcatttgggt cagtcaatta caaattcttc ttgtgcctac ttctatggct ctggaacttt 240  
 ctaccttat ctcaaggtaa tcagcactgg catgaaaata gatacccttt tatcagaaat 300  
 gcaagctcat tctcatcacc atcaatttca actacgacaa gcaataatgc ctatgactac 360  
 ataatagttg gaggaggcac agcagggtgt cctttggctg ccaccctctc tcagaacttc 420  
 agtgttttgg tgcttgaaag aggggggtgt cctttcacca accccaatgt ttcatttctg 480  
 gagaactttc acattacatt ggccgacatt t 511

<210> 4887  
 <211> 459  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068h05d1

<400> 4887

gactactaat aaatcacctt ttactagaaa ttactaccaa ctacattcat tttcaatcct 60  
 accactaacg cttttttttt tcttgatgtg caacagtgt tctcttatct tccttttaca 120

cacctttttt caagatttgc catgatcttc acacaaggga ttcttcctta tataaccagcc 180  
 aatttcccca acctatgtct caaaatcttc agcccatgt acctgcccac catcatgaca 240  
 gttgcttgag gatttgttcc tgggtattcg tcaaatgttg agccgtctac cacacgaagt 300  
 ctgtcaacgc caagaacctt gtaatcaggg ctgactacct tccccacatg gcaccctcca 360  
 tggtagtgcc aaattgtgat cacggtgtct ttgcaaaact gtgctatcga cgctgtgaca 420  
 ttgggatgct tgggtatgaa gttgacatta gccttgaca 459

<210> 4888  
 <211> 464  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068h06a1

<400> 4888  
 caagaaggag aaaaccaaga agaccaagaa tctcattctc atcctcacca attccatata 60  
 caattccaac ctcttcatca tcaacaagaa caacaacaac aacaatctta cacagggtta 120  
 gacacggaga tcttaaacc actccaacca ccgaagaaac ggtcttgctt accgcctctt 180  
 ccgccgccac caccgccgcc ttctgtcgctt gcttcatccg aacatgcaag aaaaatggga 240  
 gagctacaac accatcaaca acaggcagca gcagcagcag caccgtcgag agcggcgatg 300  
 agaggcgctg gcggcggcga gattgtggag gtgcaaggcg gccacattgt ccgtctccacc 360  
 ggacggaagg accgccacag caaagtctgc accgacaaag gcccagaga ccgccgcgtg 420  
 cggctggcgg cgcacaccgt catccaattc tacgacgttc agga 464

<210> 4889  
 <211> 544  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220068h06d1

<400> 4889  
 gcactaactt ggaaatatac aataactaga gcaaactagc tcttttattg aatttgcatt 60  
 ttattcaaact cactacaaga aactcgaaac tgaagaagta caaagaagac acaatcactt 120  
 aacaaaggga aacatagcac tccaatacag aagaaacaca agaaacatag cgctccaata 180

cagaagaaac aaaagaaaca caatactcct agtcctagtt aaattaagca tgaaaaacat 240  
aagttgaaca taaaaagcat aacaaaccga gggattggaa aacctgaata tccacctcag 300  
atcttcttga attcccggtg tagcttgaaa atccattcat catgatcttc caaaatcatg 360  
ttctctccat caattgaacc attttcaatg caaccccaca aacctgagg gagaacaaag 420  
ttgggggttt cgatgtgagt ttttcaaatac aatggcgaga atcagaggaa gcagaggacg 480  
gcttgctgga cacgccgtcg tgttcctctt taccctgaat tcgtgcacga atgcggaagc 540  
ccga 544

<210> 4890  
<211> 593  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068h07a1

<400> 4890

catatcccc cctagctaca gagcagccaa aggggaggaa taataataag cctatattct 60  
aaggccggaa aaataaaaaa ggaataacaa aaatgtctgg aaaggtaatt atctcggctg 120  
tttctctcat cctggtggtt ggagtggcca taggtgtggt ggtggccgtc aacaagaagg 180  
gcgaggatcc cacacttcaa tctcaacaaa aatcagtagg gggtatctgc caaaacactg 240  
atgaccagaa gctctgccac gaaaccctaa gctccgtgaa gggcatggac accgctgatc 300  
caaaggctta catcgccaag gcggtgaaag ccaccatgga cagcgtgacc agggccttca 360  
acatgagtga taggctcagt accgagtacg gaggcaacga taacggaacc aagatggccc 420  
ttgatgattg caaggacctc ttgcaatccg ctatcgagag cctccaactc agcattgaca 480  
tggttcacaa caacaacttg caagccgtgc ataaccaaca ggctgacttc aagaactggc 540  
tcagcgctgt tatctcgtac caacaggcct gcatggaggg ttttgacgat ggc 593

<210> 4891  
<211> 470  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220068h07d1

<400> 4891

aaacaaagcc atttaaaaaa ttttcaataa aaatatttcc gggagacccc caaagataaa 60  
 acccacgaat acccaatggg ccacgggcta taacccccaa caaccactt tttaacaggc 120  
 cccaaatgag gaaccagga tatggggtgg gggaaattca attaaccct ccagaagcta 180  
 agggcgtgag gaaccgggg agctttcaac caggcgcttc caccgggggt tccagcccgt 240  
 aggaaccggg ccggggtgaa atggggacct tcttcggggg taaaaaacc ccgggaaccc 300  
 tttcacttgg accttccgga aacgtgggag cccagggcc aacggggggg attcacccaa 360  
 gaacaagggg gtttcaaaat gcaccccgcc ccatgggcac caaccttcgg ggggaaggaa 420  
 gtcccccg gggatcccaa aaaacccgcc ctaaaaaagg cccaaggcct 470

<210> 4892  
 <211> 552  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220068h08a1  
 <400> 4892

tcttatctta gctaccccat cacaacaacc acgatactat ttctcact ctattaggca 60  
 aaaacaccac caaatgggag aggaaaagga gcagcctaag aatgacaccg agaaaaagcc 120  
 cgaggaggta gcccccaaga aagacgacgg acccatccct gtcgtttaca aactcgactt 180  
 gcattgcgag ggatgctca agaagatcaa acgcacctgt cgccacttcg aagggtgtgga 240  
 aaccgttaag gcggatctat cgtcgaacaa ggtgactgtt accggtaaaa tggacgccga 300  
 gaagctgcga gataagattg ccgagagaac aaagaagaag gttgatatca tatcagctcc 360  
 gccgaaaaa gaagccgccg ttgcggaaaa accgccggag aagaaggcag aagacaagaa 420  
 gcctgaggag aaaaaaccag aagaaaaacc taaagagagt acggtgggtt tgatgatcaa 480  
 actacactgt gacggttgca tttgcgaaaa tcgaagaatc attcttaggt tcaaaggctg 540  
 tcaattggtg ag 552

<210> 4893  
 <211> 476  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220068h08d1

<400> 4893

aataagatca acaaatttca ttgaaataat agtaaaccat ttattctgaa aaataaacia 60  
aaciaagaac agctcatgtg atgtgagttc tggacaggat tctccagcca gccggccatt 120  
ctctatctct attctctaaa acaacaacct acacatatga tatattatta tatcaaaatc 180  
ctaccatatt ataaaaactc tctatattaa ttaaatttta ataacacgga atattatcca 240  
cccctcaatt ttacacgca cgtcaatttt tttttattta caaattacac catgcggtatt 300  
ccgtatccgt atcccgtacg tgtgtaagtg tacaccgaaa attaatcacc gatcatcaca 360  
tgattgaaca tgcatggggg ttttcatcgc tgaacatctg cggaggagga gcgtgcgggt 420  
gcatgtagta cggtagaagt ggctgcagag gataaccctg gttcacgtac cctggc 476

<210> 4894

<211> 497

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068h09a1

<400> 4894

ctcgagccgt ggcgagtcac agaagtggag agactgagga taccttcatt gctgaccttt 60  
ctggttggtt ggcaacgggt caaattaaga ctggagctcc atgcagggtca gagcgtcttg 120  
ctaaatataa ccagctcttg agaattgagg aggagcttgg tgcggaagta gtgtatgctg 180  
gagctaactt ccgtaccctt gttgagccct actaaagttt tcaagtggaa aaaacctgga 240  
gatccccacg agtttgagca atgagatttg gatgcgcggg tttagttgtg atcaataagt 300  
cgatagttag aacaatagtc ttggtataag gaccttgcca ataatttttt agttctgatt 360  
cacagagcta agacagttcc gtcttagact taaaagttt tgatatttag ctttaatact 420  
tgaagtttac ttccaatttt atgggggtatc cccaaaacat ttcatactct ttgctatgtt 480  
aacttttttc ccctttc 497

<210> 4895

<211> 381

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068h09d1

<400> 4895

tttttttttt tttttttatc ttactttctt ttgttttgtc ttttttatat tttttatatt 60  
tttttatata taattaattt actttttttt attttactta taatagactg ggaaaaccac 120  
taaaaaactt aatcttaatc aaagggggga aaaaaaagca caacaacaaa aaaaaaaaaa 180  
gcgggggggg ccccccccaa aaggaggaga aacagcgagc caacagccgg aaaaaaacac 240  
actcaaagag caaaaacaaa aaaaaaccaa cccgggaaaa aaacccaaaa aaaatagggc 300  
cgggggaccc acccaaaaaa tacgggaaaa cccctcacia aacggccaaa cacaaaacc 360  
cgcccacaaa aatggttgag c 381

<210> 4896

<211> 571

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220068h10a1

<400> 4896

agcccgtcct acaaaatcct ttagtggttg ctggaggatg agaatttctt tagctcgagc 60  
actttttgtg caaccaactc tattattgct tgatgaacct acaaatcctc ttgacctgag 120  
ggctgttctc tggttggaag agtattttgt ccgttggaag aaaactctgg tggttgtctc 180  
acatgatagg gattttctca acacagtgtg tactgagatt attcatctcc atgatttgaa 240  
acttcatttc tatcgtggaa attttgatga ttttgagagc gggatatgaac agcgtcgtaa 300  
agagatgaat aagaagtatg atatttatgc caagcaattg caagcggcta agaagagtgg 360  
aaaccaggct cagcaaaaaa aagttaagga tcaagctaag tttgcagcag ctaaggaaaa 420  
aagcaagggc aagggaagg gcaaggttga tgaggatgag gccccaccag aggcacctca 480  
gaagtggagg gattacagtg tggagtttca ctttcctgaa cctactgagc tcacaccnc 540  
acttctgcag cttatngaag tcagctttag c 571

<210> 4897

<211> 432

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068h10d1

<400> 4897

attcttaact caaactttgg taatccaaaa accacaagtc tcaactagtgt attaatagca 60  
tttcccgcaa cctaaaatta cagagttgca gaatacaaga aaatgaacaa ggagaagggg 120  
aggacaaagt ccagcattgg cgggaggcaa gttatcttta tcagcaaaat acaggaagcc 180  
aaaaatgtag atatatgagg acaaattgtc actaaaataa tttttttcag aaaaggaagc 240  
tcaatcatca acttcagctt taatctctct cagcaagtcg tccttgtaat cctcaaagt 300  
tcctgggaaa tttttgacag taccatcttc gacaaccag atttgactcc tttcttcac 360  
ctcacatata cgtgatata atcttgaatc atgactaaca agaacaactt caccggtgaa 420  
ttcattcagt gc 432

<210> 4898

<211> 566

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068h11a1

<400> 4898

caccatcaca gccactgcag ttgctacagc aacaaccgca gcagaggcag aatgatcaca 60  
cttctcatcc agctcgccag gttgagtctg agatgggtgg tgaagacagt ccatctactg 120  
ctgatagtcg tctcgcccggt gccaccatga atatttatgg ccaaaatttc acaatgccta 180  
tgcagtcgcc aaactttgct ctgatgacac ctgcctcaat tgggtgcagga ggctccaatg 240  
gcagtcacag tgaaaagaag caaccccagc agcacccctgg tccaaaggct ggaggtgaaa 300  
cagctcctgc atttgccatg tcatttgcac ccatgaatgg agctactggc gcctctggcc 360  
ttgacctctc atctattgca cagaactacc attcaatcat gcagagtaat cataactatc 420  
atataatggc agcacaagct gccagtgtc agttgaagat gagttatcat gccgccgagg 480  
aagggaaaag tgtagttaat ccttctaata tagacgaaga tagaaaagca atatctgctg 540  
ggaaaaattc cgcaacaatg gggcaa 566

<210> 4899

<211> 437

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068h11d1

<400> 4899

gaggggaattc atcgtctgat gttcaagttt tatataaaat atatgggagg gtttctgtta 60  
tttatgatca ggtggccaag tacatacttc atccttcgac cacatagact ctgtcccata 120  
gatgcttact gcggtcttag tagccctata ggacggcttt gaatgacttt cttgaaatga 180  
tgaggagaaa gaacatgtcc gtgctctaca ttacatcccc atgggatgag ctgacggggac 240  
tatecctggc tttactgcat ctagctttcc ccatgacatg cttgtgaaga accctgtcga 300  
atdddgggtc aactttgcga tcaaccttga gagaggtatt aacgccgagg ggcatgctta 360  
ttacttgaca caatatacgc tcgtccatgt tcttgggatg gacgattggc catccagcat 420  
tgatgaatcc aaatcat 437

<210> 4900

<211> 493

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220068h12a1

<400> 4900

atcagctgtg actgaccact tatagccaga atgtgatgag tcttgaagat ggtattgtca 60  
agggttttga tattcggact gccaaactctg attcctcatc agatctgagt tctacattta 120  
cacttcatgc acatgacaaa gctgttacct cagtatccta taatccatcg gcaccaatc 180  
tccttgccac tggatccatg gacaaaacg taaaactttg ggatttgtcg aacaaccaac 240  
cctcttgtgt agcatctaaa tctccgagag caggggttat ctttaaaatt tctttctcag 300  
aggacaaccc cttcttgttg gctataggag gctcaaaggg aaaattgcaa gtttgggata 360  
ccttatctga tgctggcatt tctcgaagat atgggaatta caagaataga tcgcaatctg 420  
ggctttgaag ttgtagtctt gcttaccgta ctgctcaagt tgcgttgcac acatcacaat 480  
tttgggattc act 493

<210> 4901

<211> 248

<212> DNA



<213> Glycine max

<223> Clone ID: jC-gmf102220068h12d1

<400> 4901

atacgaataa ccaattccaa tttgtgctat ctcaaataa cgttgatcatg atgctaacaat 60  
tgaatttcatc aagaacatat tacagctatg gatcccttac tttgggatta tgcaactcaa 120  
ctcgagcgag tcggtacgga cctctgccat gtccaaaccc tggttgcaac ctatctgtgt 180  
catctccata tcttagagag cgccgccttc acataaggca taccaaactt gctaaaatgg 240  
cctttgag 248

<210> 4902

<211> 338

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069a01d1

<400> 4902

aggctcgtcg atcgcgtacg gtccgtgctc attccccggg gggcagctac tagtcggagg 60  
gcgccctttt ttttttttct tcgatgctaa gtagttttga tagccagcgc cacctgtgag 120  
catgaactgc gtgacctctg tctgaagact gtgctactcg agtaccacca agctgatacc 180  
gacgaccact gctaggtgat ccggatggcc gttctcgtcg ccatttgcaa tggttaccgg 240  
acatacagac ataccgctgt tggatgtcac gcctatgaca cattgacgat agggggcctg 300  
agagaagaaa attttattag atttatctaa gacgacct 338

<210> 4903

<211> 413

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069a02d1

<400> 4903

tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt ttttttttgt 60  
tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 120  
tttggggggg aaaaaccccc cccccccct tttttttttt cttttggtgg cgccggccca 180

acacacgggg gggaccccc cccccctttg ggggggggaa agggtaaaaa acaaccgggg 240  
 gggggaaaaa aaatttttac tccccgtttt ttcccgggga aaaaaaaaaa aaaaccacct 300  
 tctataattt ctccgggggg ccccccccg aaattttgt gggggggggg gctctctccc 360  
 ccaaaaaaaaa cccttttctc tcttttcccc gcccgggggg ggggtcccccc ttt 413

<210> 4904  
 <211> 391  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069a03d1

<400> 4904

agctgcaata tatatagtta tacaatcaa atcaggatgc aggagtccta tcacaacagg 60  
 attaaaaacg aaaaccacac taagattggt ttctacttgc taattgctaa tacaatgaag 120  
 cacatgcat taagatgcac tttctataaa taatttcata ctataacaat gggaaacgca 180  
 aacctacaac attcgacaac agttgactag gttgttaaaa aagcacactg taatcaacct 240  
 actatTTTTT tgttttttta atagaaaatc aatcctatcg attcatctgt cattcccaat 300  
 gaggttctc tgaattatgt tgttctctcg aaaccacctc ctatctgcat atgcagccat 360  
 tcaggagggg atgatccctg agcatacccc c 391

<210> 4905  
 <211> 369  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069a04d1

<400> 4905

aaattagtta aaaatacatg agtggaagaa aataatacat ataaaagggg tatctatcac 60  
 aaactaaaag acatttgaga tcaaagaaaa actacagagg gggtaactaa aaagctgtta 120  
 tgaccattac agtcaaccat gaaggtttta gtcgataaat tccctaaatc cttcgatcct 180  
 agtaaaaatt tcattagaca aggccaaact aaagctttct ttcaacaaaa atctaaatgc 240  
 aaatgtgtta caaaaggggg agaaaaacaa accaatcccc gtagaattct acagtatttg 300  
 gtatctactg gaaaattttt ctaaagggtg taagagaaaa ccaaagtaat tatgttctct 360

tctctttttt

369

<210> 4906  
<211> 500  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069a05d1

<400> 4906

atgtaacatg ataggactta catacgggta tcaaataccaa gttgggtgaca tagagaaatt 60  
tgatttgaca ttcatagatc agaataatcag acttacatac gggatgaacat gatacgggtg 120  
aacatgatag gagcacaata ctatacataa aaactgacac aacaccctat tagatatgaa 180  
aaactagata gcatccaatt acaaaactta agcatacata agaaaattat gcacacataa 240  
gtttgcacgt ttatttgtca atgagaggta cgttggaagg aaagaaaacc acacaccaca 300  
caccacacac tcttattaga tagagatgct gttgggaatt cctctgaaag taaggccttc 360  
cccactggta ggaagaagca cagtgtaggg catttgcgcc ggtccattac ggttcctaag 420  
gcttgaaatc ttgttctctc ctgagatctt gtcctcaatt tccttcagct tgtttccaaa 480  
cttcttaaag gcttgaattg 500

<210> 4907  
<211> 561  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069a06a1

<400> 4907

ggaatttgct aaagagtagc catcgcccca acgatcccgt ttcccttcac ttctctacgc 60  
aaagcccctt gttttgcata gagctactta aaatgtcgga gggaaatgcg gagagaggaa 120  
agagaattgc cattattggt gtctcaacct tattgttggg ggcgatggtt gtggctgtca 180  
cagttggtgt caatgttagt gagaatgggt ccaacaatga ggacacaaaa attgtctctt 240  
ctgtaaaagc cgtccaaacc ctttgccatc ccacaaatta taagaaagaa tgtgaggaaa 300  
gcctcatagc cagggctgga aataccactg atccaaaaga acttatcaaa attgtcttca 360  
acatcaccat tacaaaaatt ggcgataaac tcaaaaaaac taatcttttg catgaggttg 420

aggaggatcc cagagccaag atggcacttg acacatgcaa gcaactcatg gatctttcta 480  
 ttgaggagtt aacaagggtca cttgatggaa taggtgagtt tgacctgaaa aatatcgaca 540  
 taatcctcat gaattaaaag t 561

<210> 4908  
 <211> 494  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069a06d1

<400> 4908

gattgaacat gttttgtag ttattgtgac ttgaaaagt tgtcataagt acatgttctc 60  
 atttatagga atacttttga cacaaaagat cttacattg tcacaccatt agcctcgata 120  
 cccctttctta ggaaatacaa tgggtaaaat atctagaaga cccatttatt agtcactaaa 180  
 caaaaaaaaa atatcaaaga ggaattacgt tacattgatt tcaattcctt gagatacaaa 240  
 aatgtagctc actctaaaat taattaatga aatcaaaata attaaagaat aaagaagctc 300  
 aatcattcct tattaattaa tttatatttc ttgctttcac aactcatcac ttttattacc 360  
 aattaagcct tgtctttttg tgcctatggg gtgcgggaat gtcacgaaaag caaggaatcc 420  
 cagtaacttc aatccagtca gttccgtgaa aaaacttaga tgctgagaac caacgtgcag 480  
 cttttgaatt gaga 494

<210> 4909  
 <211> 437  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069a07a1

<400> 4909

gcctgagaga gacttagata tagagccaga taaatatcga cttacacata tggatccctt 60  
 taggagaaca gtacatgtat gggacaggcc ccgtggcccc accccatata tgactggatg 120  
 acaaagcatt ataccatgaa aattagcaga gccttacaag atgtgccgct gataagaaag 180  
 taggatgcag tcaacttgaag ctaaaggctg atttcaaacg ctagtgcatt gtacaaagat 240  
 taccaactac agacttcgtg atgtctttga cgtctctagc tatcatgggc atactacatg 300

ccatacttca cactatggga ataatggccg ccccggtgat atatatcttg gacttaagtc 360  
 acatgtctac tgtcttcgtg ggggtactctc atagggatac atgcccgtac ccgattacta 420  
 cgattgttac tggcttg 437

<210> 4910  
 <211> 440  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069a07d1

<400> 4910

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 tttttggggg gggggcgcca aaaaaggaaa aaaggggggg gaaaaaaaaa aaaaaggggg 180  
 ggggggaaaa aaaaaaaaaa aaacaagaa gggggggggc caaaaaaaag aggggggggca 240  
 aaaaaaaaaa aaacgcggag ggggggaaaa aaaaaaaaaa ggttccgacg ggcgcaacca 300  
 ccaataaaaa aaataacagg gggggggggg ggggaaaaaa aagtgggggc ccccgggcca 360  
 aaaaaaaag ggcaccacc gggggggaaa acccccgggg gggggtaaaa aaaaaggggg 420  
 gagggggggg ggggggtttt 440

<210> 4911  
 <211> 600  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069a08a1

<400> 4911

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 atccacgtgg ataacatggc cacattcact tcaactgtat caaataaaac ttattaaaac 180  
 atctttggct caaaataagg tcgtccaagt ttacaaaagg aaacaaatta agcagcgaaa 240  
 taaaataaag taaaatagca tgttcagaac attatgcaat taaaacaaaa tctcatgccc 300  
 caatgtcaca tcctatcaga gcattatgtc acaacgtcct ctagcacgag gttctttaaa 360

gtcgtccacc tagtcatctg ctcccatgaa aacaagggtc gagatcatca caaaatctaa 420  
acacaaacaa cacgtaggga gtgagttatc atatttttaa ataaaatata gataaacaaa 480  
tacataagca aaatacatta taaaaatatt tatcacatag ttcaacttaa tacaattcac 540  
gtcacttcat cactttatca tttaaaactc atttttcaat catcaattac attacacatg 600

<210> 4912  
<211> 329  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069a08d1

<400> 4912

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ttcactgaca tggtagcaca ttgcatatac gcttgagtct tagtatagct gattcataac 120  
gcctatgaat tttttattat gaaattggtg ttggtacgtc ttgaatcgag tgtgggattc 180  
atgtgtaatg taattgatga ttgaaaaatg agttttaaat gataaagtga tgaagtgcag 240  
tgaattgctt taagttgaac tatgtgataa atatttctat aatgtattgc gcttaagtat 300  
ttggttatct atattctatt caaaaatat 329

<210> 4913  
<211> 559  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069a09a1

<400> 4913

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aaccgaccat ggtgcacgtc tccttttaca ggaactatgg taagacgttt aagaagcccc 120  
gccgtccgta cgagaaggag cgtctagacg cggagctgaa gctggtgggg gagtacgggc 180  
tgcggtgcaa gagggagctg tggaggggtg agtacgcgtc cagccgcacg cgcaacaacg 240  
cgcggaatct ccttaccctc gacgagaaga acccgcgccg gatcttcgag ggcgaggctc 300  
ttctccgcag aatgttccgc tacggactcc tcgacgagac tcagaacaag ctcgattacg 360  
tcctcgccct caccgtcgag aatttcctcg agcgccgctc tcagacgctc gtcttcaaat 420

ccgggatggc caagtcatt caccacgcca gggttctcat caagcagaga catatcaggg 480  
 ctgggaggca agtgggtgaac atcccatctt tcttggtgag ggttgactca cagaagcaca 540  
 ttgacttctc actttacag 559

<210> 4914  
 <211> 457  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069a09d1

<400> 4914

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 ggtaggcaaa gtaaaagggtg gcataagatc taatagcact agagaaagac ataatgaaca 180  
 gtctaatect cgtcttcctc gtctccgtct ccacctgcgg ccttcttagc agcagccctt 240  
 tggtttcttc tcttcaactc tccagggcgt ccgccaccaa ggggacttgt aagtgagaag 300  
 tcaatgtgct tctgtgagtc aaccctcacc aagaaagatg ggatgttcac cacttgctc 360  
 ccaaccctga tatgtctctg cttgatgaga accctggcgt ggtgaatgga cttggccatc 420  
 ccggatttga agacgagcgt ctgaaagcgg cgctcga 457

<210> 4915  
 <211> 502  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069a10a1

<400> 4915

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 caccaaccaa cattgccgtt atcaagtatt gggggaaaag agacgaaacc ctcatcttac 120  
 cggttaacga cagtatcagt gtcactctcg atcccagcca cctctgcacc accaccactg 180  
 ctgccgtcag tcccgtttc caccaagatc gcatgtggct caatggaaag gagatttctc 240  
 tttctggggg caggttccag agctgttttaa gggagatccg tgctcgtgct tgtgatgttg 300  
 aggatgaaac aaagggtata aagatcaca aggaggattg gggcaaattg catgtacaca 360

ttgcttcgta caacaacttc cctactgcag caggactggc ttcatacagct gccggttttg 420  
catgccttgc ttatgccctt gggaagctaa tgaatgtcaa agaagatgaa agccaactat 480  
ctgctatcgc aaggcaagga tc 502

<210> 4916  
<211> 544  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220069a11a1  
<400> 4916

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ttgcaggtgg ggcccccagc ttgaacaagc cacttacaag aatcgccaga gactctacct 180  
ttctgagcag actgatggta gtgtgccgaa tactctgggtg attgcgaatt gcgagggttg 240  
gaagcctagg gttgctgctg ctgagcacat ttcgcagttt aatgaagagg cgcggtcccc 300  
atgtgtgaag aagtacaaga ccatcataca tcctgggtgag gtaaacagaa ttagggaatt 360  
gccacaaaat tccaagatag tggctacaca tacagacagc cctgatgtcc ttgtttggga 420  
tggtgaaagt caacctaatc gccatgctgt ccttggagct acaaactctc gttctgaatt 480  
gatattgacc cgacaccaag ataatgcgga atttgctctt gctatgtgcc caactgaacc 540  
ctat 544

<210> 4917  
<211> 472  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220069a11d1  
<400> 4917

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acgttaatct aggttttccc tactccagcc ccatacatga atggttttta aatgccatga 120  
aacatccacc gcaaatgtta aattaaatac aacagcaata ataataaac tcattttttgc 180  
ctacgacgta tgtcattttt cagtctttga agcacacgcc acaacatgag atttgaattt 240



ctccagctcg gccaaaacct catcttctgg tctgtagatc aaatcactca tgcgccatat 300  
 ctgcaacggt cccctctctc cagtactttc acagtcatta gacacactaa caatcggtcca 360  
 tggatcatat gcattccaat ggaagtcaac aactttatcc ctatgacctg catgttgaaa 420  
 aaacaaccct ggaggagaac ttattgattt tccagatcgc tctatctttt ta 472

<210> 4918  
 <211> 578  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220069a12a1  
 <400> 4918

gcaaaggcag aaagagctga agcttcttcg tgtgtgacaa agtaacaaat ttcagcatta 60  
 gcttagaaaa tggagttcgt tcctgaagaa ggcaagcacc ttcacgagga ttgctccact 120  
 ttgattttgc ctgctctgtc gattggcaat gtggggcagc tagttgcaga tcttttgatt 180  
 tcatcaatgg gttctgagag agttgggtat ttggatgac ctaacgtttt gccctgtgtt 240  
 ggcaatgatg cttatggacc ctttcctcaa ggagacctgg ctcttcctct tgaagcttat 300  
 gattccccct ctaatgctct cactatcatc caacagagat caccggtggt taagggtatg 360  
 atgattgagt ttgcaaaaaa tatggctgat tttcttgctg gtagtggaag gaagcatatt 420  
 gctgtttctc ccagcttaga ttttggaagaa tggcaaatag ttgacatgtc aagtggtttg 480  
 cagatttatt acctttctag tttcaacagc aatggaacag atgaaaattg tgaacagctt 540  
 ggggtggaaga cacttcaaga gtatgacct tctcaatg 578

<210> 4919  
 <211> 266  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220069a12d1  
 <400> 4919

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 tgttacattt cacctctaaa cgcacatcaa tgcacgagg tcacgctgt ttgattccaa 120  
 aaaagagaga atattctaaa actataattt ttatcttcag cagccattta attttacaaa 180

ttagtacatā aatccaacct tagaagatgg acacatctgg ggggtggcca tatacactca 240  
 tccaagaaag tggaactcgc catttg 266

<210> 4920  
 <211> 538  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220069b01d1

<400> 4920

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 aatgaaggaa attcatccca gttttgactt ctgattgagt gaagccacaa gacacgtatc 120  
 gaagttccca aattaacaca aattgcttgg tcagatgacc caaaaccaag ctataacaga 180  
 cccagcagct agaccaaaaa ctaagaataa tacactcaca atccctgcag tctctgcatg 240  
 ctgcaacatt acaatttttag gaatcagaat catcaatgca ctgggttaggt agccattagt 300  
 aagccctaac aggcaagtca gtattgtcac gggaatctca gtccggaaga atttgggacc 360  
 atgcaagcaa cctaagaaga gagggaaaaa caacaatctt gctatgcaac cacctatggc 420  
 aacttttgca ttctgtanga ggtaaaactgc agtcagacac ttgccaacan gatcaaacac 480  
 attatagcca gcaattagga gaattggata ccaatcctta agaattgaga gtgaacat 538

<210> 4921  
 <211> 496  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069b02d1

<400> 4921

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 acatcctgct gcattgtcga acagacaaac ctaccaagac attgttaatt tgcaagggga 180  
 tctttcgtaa atctatcttg taggcccacg catgtttgtc caaaaatgcc tccaccgctt 240  
 ccttaatggc caagtttggc actaactgtg atggatcaag gggttctcgt gtgattgggt 300  
 cgaatttacc aaccttctga agatgttcaa gaatcacagc tctctcatat gtaagtccac 360

ttggagtgat aacaggatca tgaaaaatgt cgagtgtgat tctacagcac aaataatctg 420  
gcacctcagt aggtatgtca gcttctgcag ctgtattgaa gactctttct aaagcctcta 480  
attgttctga atggga 496

<210> 4922  
<211> 168  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069b03d1

<400> 4922

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taccgggctt tcccccaaaa aaataagggc gggaccggca atacgaagcg aaaaaaaga 120  
aaaagaatag ccccccaat ccagaagggc taaacagggg ggataaaa 168

<210> 4923  
<211> 440  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069b04d1

<400> 4923

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ggacttcaga ctccaaaagt gctacaaatt aaagagcctt ccagaaaaaa tggctttcaa 120  
cattagatac aaaataagta accttgtatt cttccaatta tgtgatgatt aataagaaac 180  
aaatgctaca aaaccaagcc taaatgtctc atttcttgac ttctcatac tcggcctcgg 240  
gagcctgttc accaccctga gaacctccgg ctgaggaacc gccactagaa ccacctgaaa 300  
tgtgtctctc aatcttgagg acagctttgt ttgcagcatc aagctttgcc ttaatttcgt 360  
cagcattgtc tcctgccatt gctggtctca aatccgatac tgcattttca atctctttgg 420  
ccacttcact ggggatctta 440

<210> 4924  
<211> 500  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069b05d1

<400> 4924

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taaaagctgg tttggtatcc cttcaaatac acagataaac gaattattta tataacttat 120  
ttatataaac tcgtccttga atttttacct ttataagaat acatactgat ctaaaagaat 180  
gttttttctt tcctaattag aggtgaaaat cttattgatg aatttgcaaa tgaaactcat 240  
caaattttca catctatttt gaggacatct accaaataga gacctaaagag gtgaactcag 300  
gaggaagttc tcctcgtagg aaaaatgaga tcatgggttag ggctctctgc ggttggtaac 360  
ttggaaccat gtgcccagct cctcttacag tgattagtgt gagccctttg tacccaacca 420  
agtatcctcc aacctcattg ctagaatacc atggacgcca tgttgtctcc actggaagtt 480  
tcatggaatt tattgaatac 500

<210> 4925

<211> 590

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069b07a1

<400> 4925

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ggatgagatt gagaagatgg tccaagaggc ggagaagtac aaggccgagg atgaggagca 120  
caagaagaat gtcgacgcat agaattgctt ggagaactat gcctacaaca tgaggaacac 180  
cattaaggat gagaagattg catcaaagct ttctgatgac gacaagaaga aaatcgaaga 240  
tgccatcgag agtgctattc agtggttggg tggaaaccag ctagcggagg ctgacgagtt 300  
cgaagacaag atgaaggagc ttgagagcat ttgcaacca atcattgcca aaatgtacca 360  
gggtgcaggt gctcccagca tggttgagg catggatgaa gatgttcctc catctggatc 420  
cggtggtgct ggcccaaga tcgaagaagt tgattaaatt ggttcattat ttagatggga 480  
tggtgctgtg ttggatctat tccgtttttt attctttatt taatttgtct agatattggc 540  
cattatttgt tactacacca ggatgggatg gaaatctttt tttggtttga 590

<210> 4926  
<211> 347  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069b07d1

<400> 4926

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cgcacgaaaa acgtctatat caaacatcaa cagcgcagaa aaaactaaaa aggaacggcc 120  
caaaaaatgg gaaaaaaaaa caaaaatttt taacaaaaaa aaaaaggggg gaaaaccgga 180  
aaaaccattt taaacaaaaa aaaaagatta tccaaaaaac caaccgggag cgggggcca 240  
aaaaaagggg ctttgtgact aaacaaaaa acaaccgcg caaagcgacg gagttgggtc 300  
ctcccacgcc ccacccaaaa aaaaaacgcc ccccccccc cccgggg 347

<210> 4927  
<211> 573  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069b08a1

<400> 4927

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acaacgtcaa ggccaagatc caggacaagg aaggaatccc cccggaccag caacgtctca 180  
ttttcgccgg aaagcaactt gaggacggcc gtacccttgc tgactacaac attcagaagg 240  
ggagtactct tcacctgctc ctacgtctcc gtggtggcat gcagatcttc gttaagacac 300  
tcaccggcaa gaccataacc ctagagggtg aaagctccga caccatcgat aacgtcaagg 360  
ccaagatcca ggacaaggag ggtatcccc cgaccagca acgtctcatc ttcgccggaa 420  
agcagctcga ggacggccgc accctcgccg actacaacat ccagaaggaa tcaacccttc 480  
accttgctct tcgtctccgt ggtggcatgc agatcttcgt taagaccctc accggcaaga 540  
ctattactct agaaagtcga agctccgaca cca 573

<210> 4928  
<211> 456

<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069b08d1

<400> 4928

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gagttcaaca caaaccgaac ttattttcaa gggacattat tacagacca ttaaacaatca 120  
aagttcttca aatgttttgg gaacacattc aacattacac aacgagctta aaacccccca 180  
cggagacgga ggacaagggg aagggttgat tccttctgga tgttgtagtc agcgagggtc 240  
cttccattct cgagctgctt tgccagcaaa aatcagcctc tgctgggtccg gtgggatgcc 300  
ttccttgtcc tgaatcttgg ccttcacatt gtcaatggtg tcagagctct ccacctcgag 360  
ggtaatagtc ttaccgtaa gagttttcac gaaatttga taccaccacg aagacgcaca 420  
ccaagtggag agttgactcc ttttgatgt tgtagt 456

<210> 4929  
<211> 555  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069b09a1

<400> 4929

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acttttgcgc tttgggggtc ccttggtgct tggtatcacc ttctgttatg ctacttctac 120  
tgctgcagca acaaactcaa gtttcaggga atgaagagct gccaaagaca aacctaaatg 180  
ggcatgatga agaagcaaaa ttcggatttt ttcatcataa accaatattc aagaaacata 240  
ttccaattcc agtatataaa cctgtaccaa agccatttcc agtgtataaa cctataccaa 300  
agccagttcc agttccagtg tacaagccta ttccaaagcc agtgtataag cctattccaa 360  
agccagttcc agtgtacaag cctataccaa agccagttcc agttccagtg tataagccta 420  
ttccaagcca gtgtacaagc ctattccgaa gccagtgtat aagcctattc caaagccagt 480  
tccagtgtac aagcctatac caaagccagt tccagttcca gtgtataagc ctattccaag 540  
ccagtgtaca agcct 555

<210> 4930  
<211> 574  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069b10a1

<400> 4930

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ttatgaaggg gaagatgagc atgaagaatc accttccatc aagagggagc tctctgattt 120  
tgatctccaa gtcctcgaag ttgctgcaag caaaggagga tgtgatccat caagtgaaga 180  
gataaaatac cctagtttat acgaaaacca agctaacatt caattggaag acaaagacca 240  
tgaatacagc aaaaagagtt gtgacataat tcaaagtgga catgtcagtg atcctgggat 300  
tggcaaagct gaattttgtg cttctccaaa gctcaagcga tcctgctctg acctggaaa 360  
aagggatgta ctaagggaga cttgtcatct ctttccatct tcaaagtcac agtcttttga 420  
ggatttgcag gggttatcag cacatcagat ggtaaatcta gaaagcccca ggtctgtgat 480  
gactcaccgc agtgctgata gagtgatggt gaaaaggcat tcctcaagtc aagttctccc 540  
ttctagaagt aaaagactgt ggtggaagtt gttc 574

<210> 4931  
<211> 399  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069b10d1

<400> 4931

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tttaaacc aa gagactttca atggctagag cagtctcctt tatgggataa tcaaaccccc 120  
atgataacta acggggtgaa acaaaacaac accaattccc gcaaagcctt tttattccac 180  
aaaggggggtt acaggttgaa gcaagtcctg ggtaaaaaca agtttgaaaa aaactcctcc 240  
attttatcaa gttttaaaaa tactgatgaa tgccgctttt cacaaacacc taaggagggtt 300  
tagttgggct ccttgacctg ttctgattt tttgggaaac actagcactg tttttatgca 360  
cactggaact tgacccttca tggccgccac cttttttta 399

<210> 4932  
 <211> 580  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220069b11a1

<400> 4932

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 ttctcttggg aaagatcaaa gcttcactgc aaggtagtaa ctctgacaac cttgttttgt 180  
 cttcatggaa ctctccacc ccactttgtc agtggaagg cctcatatgg gtcttctcca 240  
 atggcactcc tctctcatgc actgacttgt cctctcctca atggaccaat ctacactcc 300  
 tcaaagacct ttctcttcac ttgttttccc tccggctccc ttctgcaaac ctctctgggt 360  
 ccctccctag agagcttgga gggttcccta tgctccaaag tctctacctt aacattaact 420  
 cattggaggg taccatccct cttgagcttg gttatagctc ctctctctct gagatcgatt 480  
 tgggtgacaa tatgctaggt ggtgttcttt caccttctat ttggaactng tgtgagaggc 540  
 ttgttccctt aggtccacc ggtattcttt atctgggtta 580

<210> 4933  
 <211> 530  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069b11d1

<400> 4933

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 cagattcagc tgagaaaaag gaaacacaaa tattaagtaa aaatcactag ttcgcttaag 180  
 catgttgaaa gggaaggctc aaaatggggg aacacttcca cttcttggtt ctgtaggggt 240  
 gtataatgca gacctgttcc ttgggtctatt ctctccaac tgctcaca cttcatccat 300  
 gcttggccta acagatgcca ctgggtgcaca gacccccatt gccagtttta gcgcctgcac 360  
 caacccatct ttcatagggc ttcttatccc tttcaaaagc tccacattaa acattgcat 420



cgctcgtgttc ttcaaaaccg ccactttcac catcgaaggc aagtccacat actcgccatt 480  
tattccaatc ttcccagggt tcttccaatc aagaattcaa gcagcagtat 530

<210> 4934  
<211> 486  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069b12a1

<400> 4934

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tgaacactgg atcttctggg tgggaccatt catcgggtga gctcttgag cactctacca 120  
ccaggtcgta atcagggcca ttccttcaa gtccaagtga ttcaatcaaa cggttcatgc 180  
ttaatcaagt tgggaacaac aacaacaaca aaaatcaagc caatgtttgt gggttttggt 240  
ttcatttcat taagatgac tgcttatctc ttttcttctt tttaaaattt aaagtctttg 300  
tattttgtat gtaaagatgt aaaattatga ttattagggt gtgcatgtgt cgcgtcatgg 360  
gccaatgtta tcctctgctt ttaagttgga agaggcccaa ctcatgtgtg atgtacggct 420  
gtgatttgtt aatttaattt gcaaaatcaa aaataacacc agagtcatat aaaaaaaaaa 480  
aaagaa 486

<210> 4935  
<211> 470  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069b12d1

<400> 4935

atatgactct ggtgttattt ttgattttgc aaattaaatt acacaatcac agccgtacat 60  
cacacatgag ttgggcctct tccaacttaa aagcagagga taacattggc ccatgacgag 120  
acacatgcac cacctaataa tcataatttt acatctttac atacaaaata caaagacttt 180  
aaattttaaa aagaagaaaa gagataaaca gatcatctta atgaaatgaa accaaaaccc 240  
acaaacattg gcttgatttt tggtgttgtt gttgttccca acttgattaa gcatgaaccg 300  
tttgattgaa tcacttggac ttgaaggga tggccctgat tacgacctgg tggtagagtg 360

ctgcaagagc tgcaccgatg aatggtccca cccagaagat ccagtgttca tcccaaccaa 420  
 ggtccttgtt gaagatgata gcagcaccaa gactacgagc aggggttgata 470

<210> 4936  
 <211> 467  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069c01d1

<400> 4936

caaacataat gtactttaat atatatccaa agggaggaaa gcaacctaac agcacaacac 60  
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 tatttttcat tataagggtta attctggcca tggaagtatg taaatacttc tttcacttta 180  
 aaattcccca ctggattctt tccatccacc atagctctct tcaggttcag cataatcctg 240  
 ctcttcattt ttctcaacag taaaagtgag agccacctta atctctccac aatattcttc 300  
 gtccttcaca accttgtaag cagtttctgg aatgctaccc gcttcaaaca ctggatccag 360  
 atgaatgggt gccacgcaa gacaatcatc ttgactaaag ttgtctttat ccattatctt 420  
 tagattaagt tcagatgcac tgtcagagac agtgaataga aagctct 467

<210> 4937  
 <211> 377  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069c02d1

<400> 4937

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 gaaaaagggg ttttttacta aagcaaactt aaacaaaaac aacttcccct tatttggcat 120  
 ctaccggggg aaaacaggaa caaaagccgc tttttgatag aacacacctt tgttttatat 180  
 tgaacatttt gcacaggggt ttatttttca cagcttttgg aacttaaaat acttgcaaag 240  
 gttttggaaa taccaaactt tttttttctc cctttttttt ggagatgaca aaggggcccg 300  
 atcatgaaac aataatccac ccccttgga ttgaatcttg ttttggggtg ggaacgaggc 360  
 cccctttttt ttatttt 377

<210> 4938  
<211> 419  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069c03d1

<400> 4938

gagagccatg atcacaatta ctactaccat tctccactac acacaaaaat tctcacaacg 60  
atgtaatcaa aagaatagta catttttcgaa accacaaatg acactagcta gaggattcat 120  
caacagataa caaaacttag ggagggcaca tatttagaat atggcttcac acttatectg 180  
ttgcataatg tatcaatcaa accctggaat ctagggccat gatggtgcta agattcatgg 240  
ggtgcatgta ctggtcagag ccagtcatca tctgttggac tatgattcgg ttagctttct 300  
ccgatgggtg aaatggatcc caaaacgcgt ataggtctct atttggacac aagttggaaa 360  
ggggtgtgca gagtccaacc ccattaaacg ggccttgccc acaacaagct atctttgat 419

<210> 4939  
<211> 420  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069c04d1

<400> 4939

caatatgaac aatatacatg aatataagaa atatatgtaa gtacacgcat ggtcagttca 60  
tatccgaagg gtcctaacca accacaaaac ggtcgtctca gcggtctgaa gtaaaacgtg 120  
ataaacaaca ttataaaact gtaccagcat aagcaatcaa acaaacacaa catatcaata 180  
tgacctattg ggtttgaag atgatgaggt tttggatttg gcaaaatcaa caagatcctt 240  
gaaaagggca tcttctggct tctgttgttt ggttgggggtg gatgaattca gggagagatt 300  
ttgagtttgt cccaccaagc tgtcataaga ggaactggat ccactacttg aatgagatac 360  
accttgttgc tcaaaaaact gttgtctttg attatacttt gaaggtgggg gccggatgat 420

<210> 4940  
<211> 563  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069c05a1

<400> 4940

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tcctctatct tccaaagtat gaacgttggc gttgttcttg acgaaggtct ggcttctccc 120  
gacccccatt accggtcttt ctatgccgaa aggagtccct ggtgggtggg catcaaggcc 180  
tttgggtgtc ccggccatgg cgccaagctt tatgataact ctgccatgga gaatctcttt 240  
aagagcattg aaagtatccg aagggtccgc tcctcgagcgt tcgacttgat caaggccggc 300  
ttcaaggccg aaggcgatgt tgtttctgtt aatatgggtc ttctcaaggc tggaactcca 360  
tctccaactg gttttgtcat gaatttgcag ctttctgaag cagaagctgg atttgatatt 420  
cgggtgccac cactgctga tccagaatcg ttggagaggc gcattgctga ggaatgggca 480  
ccttcacccc gcaatatgtc atttactttc aaccagaggc gcacacacga gataagtctg 540  
ggaaaccaat cctcaccaaa act 563

<210> 4941

<211> 385

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069c05d1

<400> 4941

ggaaacaaac atatttgttt cctttttatt ggtatggggc aaaagctaca acaaagtcag 60  
gggggggggt atttttcctc tttattggta cataaaaaaa ggccaaaaat gagaattagg 120  
tgggggggagg ggccacacca cttgctcata actaattttt ggaggctcca ttttttccat 180  
tatcatccaa cgatgcatat accttaatta ttggctcgga aattttaatc cctttcaagg 240  
attcattttt gtgcaaaaac tcattgtggg catgtaaaaa aacaggagtg tttgccatag 300  
gggaaaatcc aattgctggg aatccacgtt cacggaagta gcgtgaattt gtagcggggg 360  
gaaaaacctc gggcttacca agttt 385

<210> 4942

<211> 609

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220069c06a1

<400> 4942

ctcgagccga ttctggctcga ggagagagag gagcggagga gagaaaatga cgacgaggtt 60  
caagatgaac aggaagaaga gagggccacgt cagcgccggt cacggtcgta tcgggaagca 120  
ccgcaagcat cccggtgggtc ggggtaacgc cgggtggcatg caccaccacc gcatcctctt 180  
cgacaagtac catcccgggtt tcttcggaaa ggtgggtatg cgctacttcc acaaactccg 240  
caacaaattc tactgccccca tcgtcaacat tgataagcta tggtccttcc taccacagga 300  
ggccaaggac aaggccaccg ccgacaaggc gccattgctc gatgtcacc agttcgggta 360  
ctttaaggct ttgggtaaag gggttttgcc tcagaaccag cctctgggtcg tgaaggccaa 420  
gcttgtttcc aagatcgccg agaagaagat caaggaggcc ggcggagccg tcgttctcac 480  
cgcttgattc ttttggggta tttttattta caaggatttt gagatctgtc gttatttttg 540  
ttttggctct tgcttaatct gctgaactgg attagttaa tgtccctttt atattctcaa 600  
ggcctggat 609

<210> 4943

<211> 441

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220069c06d1

<400> 4943

aaaaacgata taatccagaa cattgagaat ataaaaaaaa acattttaaac taatccagtt 60  
cagacagatt aaaacaagaa ccaaaaccaa aaataacaac agatctcaaa atccttttaa 120  
ataaaaatac ccaaaaaaaaa tcaggcgggg agaacgacgg ctccaccggc ctcttgatc 180  
tttttctcgg cgatcttga aacaagcttg gccttcacga ccagaggctg gttctgaggc 240  
aaaaccctt taccctaaac cttaaagtaa ccgaactggg tgacatcgag caatggcgcc 300  
ttgtcggcgg tggccttgtc cttggccttc tggggtagga gggaccatag cttatcaatg 360  
ttgacgatgg ggcagtagaa tttgttgccg agtttgggga gtagcgcata cccacctctt 420  
cgaagaaacc gggatggtac t 441

<210> 4944

<211> 557  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220069c07a1

<400> 4944

cttaatgata tggattgca gggaataata aaggaagagc aattggatac ttttaacatc 60  
cctttctaca ctccatcccc atctgaagtg aaattggaag ttcttaaaga aggttcattt 120  
gccattaatt gtttagaggt gtctgtagtg cactggagcg cttgggatga atggagtgtt 180  
cttgactttg aatctgaaag cggatacaat ttgacacaga gcatgagggc tgtggcagaa 240  
tctatgctgg ttagccactt tggatgaagct atcattgatg agcttttcag ccgttaccaa 300  
gaaatcttgg ctgacgtat gtccaaggag aaaactaagt tcatcaatgt taccatatta 360  
ttgactagaa aaccataagc aagaagtttg catctaaagt ttctcaaaag gtttgctggt 420  
gtaattattg tgactgtttg cttgatttgt tcttctttt ctagcaaatt ataactacga 480  
gtattctggg gtacctttgg tagtagagct ttcttttata tattttctcc attctgggta 540  
taaataattt attacgt 557

<210> 4945  
<211> 424  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069c07d1

<400> 4945

agacgaatca cgtatcgtaa tttcacgtaa taaaatattt tataacagaa tggagaaaat 60  
atataaaaga aagctctact accaaaggga caacagaata ctcgtagtta taatttgcta 120  
gaaaaagaag aacaaatcaa gcaaacagtc acaataatta caacgacaaa ccttttgaga 180  
aacttttagat gcaaacttct tgcttatggg tttctagtca ataatatggg aacattgatg 240  
aacttagttt tctccttgga catacgatca gccagattt cttggtaacg gctgaaaagc 300  
tcatcaatga tagcttcacc aaaggggcta accagcatag attctgccac agccctcatg 360  
ctctgtgtca aattgtatcc gctttcagat tcaaagtcaa gaacacttca ttcacccaa 420  
gcgc 424

<210> 4946  
<211> 540  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069c08a1

<400> 4946

cttaaagata tgttactttt ttttttctta aaattttgga catttttctt gcaactctta 60  
gatcagatag ttgtattttg caagggctaa acgtagttagt aaatgtgtat gacagaagat 120  
gtccctttta aaatagctta cttataacaa ggttgatatg gcatctgcat ctattgtgta 180  
aggaggcaag tttattgata actggattta tggctataaa atagttatac aaggctccag 240  
agtgatttgg aaatagtcag ttgcttagtt tttttaaaca gctttaaatt ttgggggttta 300  
agagaaaaga gtttagcaatt acaatctgat ggcagtggaa tcaacggcta agtgctattc 360  
tctggttgtc tggatttgta cttttgcctg tgcttaaattg ctttgattga aatgtgaacc 420  
cccccccacc ccccaaacac aatgggtttta aggtttcaat ctaacagtgg aaattgaggt 480  
aaaaatatta ttctgagtgt ggtgcaagcc acctatgtac tatttttctt ttacttatgc 540

<210> 4947  
<211> 497  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069c08d1

<400> 4947

ctacgaaata ataacgatgt ttttgaaagt gaaacagaca atacagtata tattgattca 60  
gatatgcaag gtcgaaaagt agtgttcaaa cagaagtact aaacatgtgg atatgtaata 120  
gtcttcttaa ccgtaggacc tgagagaaaa atacatgtta aaattctctc agtattcaag 180  
ggagccaatt gatggtagtc ctgaaacaat ttcattgagaa tctgcaccag tgctattcag 240  
cctctgtcct ggacttggac caagggattc cagggcttgt tctcccatct tatggatatc 300  
ttcaggtgaa agtatattga tataccatac attattgaca aatgattccc acggatcgtc 360  
tccaaggaga agaacatcgt tctccctgtc gacgaatata agctgccagc ctgatctaag 420  
aggggtcttct aatttcccct caaataccaa acatctgtgc caactcctcc gcagctcatg 480

ataactgctg aaccggg

497

<210> 4948  
<211> 562  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220069c10a1

<400> 4948

ggaaaacgaa tctcaaactt cacaagtgtt tgaggcgcca tggcggatcg gttgacgcgt 60  
attgccatcg tcagcaacga caggtgcaag cccaaaaagt gccgccagga gtgcaagaag 120  
agttgccccg tcgtcagaac cgggaggttg tgtattgagg ttacttcctc gtccaagatt 180  
gctttcattt cggaggaatt gtgtattgga tgcggtatth gtgttaagaa atgtcctttt 240  
gaagctattc agattatcaa cttgccgaag gacttggaca gggatactac tcatagatat 300  
ggtcctaata cttttaagct gcataggttg ccggttccga ggcccgggca ggtgcttggg 360  
ttggttggga ctaatgggat tgggaagtcc accgctctta aagttttggc cgggaaactg 420  
aagccgaact tgggtcgatt cactaatccc cctgattggc aggatatttt gacctatttt 480  
cgaggatctg aactgcagaa ttatttactc cgattctaga ggatgatttg aaagctatca 540  
tcaagcctca gtatgttgac ca 562

<210> 4949  
<211> 373  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220069c10d1

<400> 4949

catctaataaa atgtaaggat ttatttccac gaaaatttaa ccctcaacga caactttttc 60  
caaacagaaa acattttttt aaattaagta acagggaagg aacgtaaact ttgttacata 120  
ctcaactgaa atgggcgata aactcagtct gacattatga atgttccttt ggacttagga 180  
catcgaatga aaaccatgcc caatataaac tcatgtaatt ttcaaattca ccccccaag 240  
tcgtagcaaa cctgggggatg agtaactgca ctaaaattaa ggggaaaaat acaaaatgcc 300  
ccaaccaaca tagggtttgc aattgcatgc aggctctttt tttttttgag aaagatgctt 360



ttttcggcaa aaa

373

<210> 4950  
<211> 565  
<212> DNA  
<213> Glycine max  
  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220069c12a1  
  
<400> 4950

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gggtttcttc gctcctcttt gttggatctt ctcactttg catcgttctc ttcgattcgt 120  
aaaatttttc ttgcttctcc tgtcttggtc cgagatccgg gccaaagcaca gaagaatccg 180  
tttctgattt gcattttgta ctactgggtt tggcttggtt ttttctcttt gtataaatgg 240  
cttcgagcga ggggtttctg accgatggcc agagggaact gctaaaaatt gcaagtcaaa 300  
atgcggagaa tctgtcttcg tcgccgaagt ctcaagtcgc cttgctgtct gaccatcatg 360  
tgaaagcccc tgctggtggt aaggcacaaa ccgctggaat agctgtgagg catgtgcgtc 420  
ggtcacactc gggaaagtat gggaaggtga agaaggatgg tgctggtggt cagggtactc 480  
gnggaaaatt gctcgatata gatatcgctt ctacataga cctgcatgat ccatattatg 540  
acagtggcga agaaccctat cagct 565

<210> 4951  
<211> 394  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220069c12d1  
  
<400> 4951

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aaaaagctgt taatggaatg cgaccaactt aactttatac aatggctgag ataacaggaa 120  
actctgtcgg tgagatgatt cagggaaaaa agagtaagta aaaggaacaa aaaaataaaa 180  
ggatcattag aagccagatt tatccattat ccatattcac cattcgggtg gagctaaagg 240  
acaacacaca tgagagaaac aataagacac aaacgtcctc aaaaagctgc tgccgggggt 300

aattagggcat ctgtggcagg tgaatcaaat gagggtagaa gccagccatt cgactgagca 360  
tgctccacat agaagccaaa tttctccttt gcgt 394

<210> 4952  
<211> 543  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069d01d1

<400> 4952

agaaagctca aaatgatctt ttatttaata ttggaggctg aaaggcctat aagaaacagc 60  
cacgtgagaa taaaccgaaa agtcaccaca ggttggggag cacatacaat aaacattgaa 120  
caatcagaaa tataaaaagc tcataatgtg ggacaggaac gactaataca aaaggagcaa 180  
tacgtaagca aatccaagag agaaagtggg aactaaaagc acatccaaac ccccaccgtg 240  
gcttgctgag tcatgcgagt ttggcagcag agaacatcct aagcatgctt agcaaactga 300  
tggtgaatgt tggccttgtc agaattggaa agctgcacct ttcgcttgctg tgaggacaat 360  
atgtaaggat acataacaga gtcctctttg tgagagtgat caagtccaag tagatgccct 420  
atctgggtgca tcgccgcagt ctccaagtcc aaaactccat catctttaga cagtgtggcg 480  
ttttcacttg gaagtaacca gcccatgtta ccgttcagaa gtaccacccc tttcttacta 540  
gaa 543

<210> 4953  
<211> 423  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069d02d1

<400> 4953

ggagaagact tttttacata ttataaagca aaagataaaa atgtagagaa tcaaccacat 60  
gggtagtggt gcagttgttt acaggggttc aaattaatga acaccttaag gaccacatt 120  
agacccttga atgtctaaca atcagaacca caacgagaaa aaaaaattat atatagcaca 180  
aaatgtaaca tggaaataaaa gcaaactata cattgcttac ataaacatgg ttcatgccag 240  
ccacacctaa acctccgaat tttgttatat gctttactac ttgccgcac acaaaattct 300

ctcaaccgcg gaggagagaa gcagaaggtc taggataagc agaagccttt ctaggggcat 360  
ctgaaccacc atcgccacca ttggtacggc cggggccgga attgcgtaca tgatgctgtt 420  
tat 423

<210> 4954  
<211> 416  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220069d03d1  
<400> 4954

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ttctcaagta aaagagccaa gtacaagaag ttcacaccat caaaaaccct gctttttacac 120  
agaacaaacc ggcaagcaga atactctctc cctatagaaa ctgctctatc aagtgtgtag 180  
cacggaacac actgccctat acatcattat ttataagaat atgcatagta atgtaaaact 240  
tctaattcccg ggattgtcca tcgacactct tgttttctca tctcgcttcc tctgtggcag 300  
cgacaatgaa gacatgactt tggctgaggc cacctttctc gctagtgggt tccacttaag 360  
ataactcttc cttttctctt gctgcattct caattgaaat tgcttcgata agggaa 416

<210> 4955  
<211> 407  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220069d04d1  
<400> 4955

gaaataatat acattaattc tcataatata caattaaata atttaaattcc tcataataat 60  
aatagtcaaa tagtaattaa ttaaaattca cgatttatta aaaaataatt caccaagaca 120  
gtaacatttt agaggggagg aggaattaat ctccattatt ctctctaca ccaaaacttt 180  
cattttacta aaaataaaaa tcacacaata ctgcacttac aattccatca tcgacgatca 240  
ttcacgggcy gttaaaccac cacgtaaaag aaatgatccg tcaccaatta atctctatat 300  
atztatcaat ttatgggttc gatgacgttg ctaaagtcag aaggagtttg ttgcactggt 360  
ggcatttttt gaggacccgc agctttttcc atgtcagcga taatatt 407

<210> 4956  
<211> 355  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220069d05a1

<400> 4956

ngtnantcgg acattctggc attcgacgcg atagaggtgt gattctcttg ctcgtaacga 60  
cgagcacagt gatgcgtgtc agtacaagta ggcacagacc tacagagcgt ctattgaggt 120  
agcaaggctg tactgagtag gcatcggtta tgctctgtta ctgcccatac taccggtacc 180  
gcttgcttca atgtggagct agaaccgtca gtggactgga gcacaatcgc tctgtaacct 240  
tacggttcca gagaagcctt gctcgcgcag gggggcatgc ggccgtgaag agccttggcg 300  
atccggtggc actggcggag cgcctgata gtgacggtct ggtcgggtgat ctgcc 355

<210> 4957  
<211> 241  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069d05d1

<400> 4957

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atgagcccaa accgaaaatg acaacgaatc ccattttgct ttttagataa aaatacccca 120  
tacaaaacag gcggtgcgaa cgactgttcc accggcctcc ttgaacgaat tattggcgct 180  
cttgggatca agtttgggtg ttaacacccg tggctggcct tgaggaaaat ccccttttat 240  
c 241

<210> 4958  
<211> 579  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069d06a1

<400> 4958

caccgagaaa gtcgtactga ttcctcttca tctttcgtta aagcgagtac ttttcgttct 60

tgatctgttg gttacgatgt cgtattcaag gagatctagg tattctcctt ctccttctcc 120  
 ttctccatac aagcgatacg gtaggtctgt gtccaggtct ctctcaatat caagatccag 180  
 aagccgttca aggagtttat caagagatgc agaaaatcca ggaaacaatt tgtatgtgac 240  
 aggattgtct cctaggatta ccaagagaga actggagaaa cattttgctg ctgaaggaaa 300  
 agtgatagat gtccatctgg tagttgatcc ttggacaagg gaatcccgtg ggtttggctt 360  
 tgtgacaatg gagactcttg aggaggctga acgatgtgta aagtatctga atcgctctgt 420  
 acttgaaggg cgtgtcatca cgggtggagaa ggctaaaaga cgacgtggtc gaacccccac 480  
 gccagggagg tatctaggac tgagaactat tcgtgctcga cgtcgctctc cagttactct 540  
 cctcgctcgt cttctagcta ttctcccttc agaagaagc 579

<210> 4959  
 <211> 481  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069d06d1

<400> 4959

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 ctagaactgc atacatatac cacactaata tattatccac tataagccta agatgttaag 180  
 ccatatagga ccaacaaatt tcaagttgaa ggagaggtag accttggagt atttgacctc 240  
 gatactgata ttgaacttgc attcacactc gagcttcttg agtagcgttt ctcacatttg 300  
 ccactcctct tagagcttct tgaatggctc ctccttgacc tgggggacac atttcgtgag 360  
 ttgcttctct ttgaaacagg tgtagcactc cgtgagtagc tccttcttga ccttctcctt 420  
 ggctgggtg aggcactccg agaaacagac ctgaacggtg cctttcatat taggatcatc 480  
 a 481

<210> 4960  
 <211> 637  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220069d07a1

<400> 4960

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aaggaaaagg aaaaagacca ccagaggctc tctgaggccg agaaagaggg ctttgatttc 120  
tccttctctg agttctcgtt ggctgagctg aaggcggcca ccaacaattt cagctctgac 180  
tatatcgtgt ctgagagtgg ggagaaggca cccaaccttg tttacaaggg tcgcctccag 240  
aaccatagcc gctggattgc cgtcaagaag ttcagcaagt ctgcttggcc tgatcccaag 300  
caattcgtcg aagaggcttc cggcgtcggc aagttgcgcc atccaaggct cgctattttg 360  
atcggtttct gctgcgacgg cgatgagagg cttctcgttg ccgagtacat gcctaataat 420  
actcttgcca agcatctttt ccactgggaa actcagacta ttgagtgggc tatgaggctg 480  
cgagtcgctc tttacatcgn ccaggctttg cattattgca gctctgaggg tcgtcccttg 540  
taccatgact tgaatgctta ccgtgttctc ttcgaccagg aaggcgatcc ccgtctctct 600  
ttgctttgtt ttatgaagaa caccnggatg gtagagt 637

<210> 4961

<211> 477

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069d07d1

<400> 4961

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ccatggcctt gaccagtgaag gagttagaat aacctcaata aacacctggt tgacagtaag 120  
taaccagta ggcatacaacc aatcaatttc attacaatg gaaaaattac cggatttcct 180  
tccaattta gattgcataa gcacagtttt caagttaacc gattcctata agatggtgaa 240  
ataaaatgca tgtgccatct actccaccac ttttgtattt ctctgacaca ttttatactc 300  
attcaaacgt tagttttgct tcccagctca acctttatac agaacttgac accctcaa 360  
tagccactg cataaaacta tgatcctctc gctcctcttt gcctcttctc ttccaatgca 420  
gctgcctcat ttaacatatc agccgcatcc ttgtgcatgt ccagttttgc aagagca 477

<210> 4962

<211> 487  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069d08a1

<400> 4962

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cattgcagat aaaaaatgat ttgaggcatc ctgctacgac ttcaggagat ggtgaagcca 120  
tttcatcgag ttgtgtagag aaaagtgggtg atggtagatc tcagataaat agctccccta 180  
cagattttctt acaaaatgct gaagggtccat gcttacggcc tgaaatcaaa gaggataactt 240  
ctgaaactat attgccagat aaaaaggaga ctaatgtaga cctcggagggt tctgactcta 300  
aattaaagtc atgcactttc tctattgatg atgatcagaa ggttgatcac atgaatgagg 360  
gaaccattga gaatgaggaa ttgctgggtc caaaagctgt tgcaagtgtt aagtctgaaa 420  
atgaatcatg tgaaaagcaa gctgagttat cctcaggcgt ggataatgag aaccagattt 480  
gttcaga 487

<210> 4963  
<211> 462  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069d08d1

<400> 4963

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aagactacag caataactat atatgtaaca aaagttgaaa aaaaatgatt taaagaagac 120  
aaactagcct caagcttagc cagttcatac atccaatcct ttccttccaa atgctcgaga 180  
gcggtattggg ctgggtgctg ttgcagaaca gtcacagtca aacacttgat gccaatcttct 240  
ctgattctag gcggcattat cacacctgct ggtttcagtt agatatctac acaggaaaaa 300  
catttatctg caagcgacaa tctgggagca gattcataca aaacaactgc atcagaggcc 360  
ctgatcgctt tatcaagtca gaacttgaga ggcacattag caacaagggt agcatctttg 420  
cttggttgcca tggctaacac tcaaaataat atccccattt tt 462

<210> 4964

<211> 498  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220069d09a1

<400> 4964

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acgtcccttc ttccttccaa tgttcccttc catcataaat tctaataaat ctctgaccca 120  
gcaacaacaa agcaaaaggg agaatgggta gcaggaagtt tcaaggcaga gaacttcatt 180  
ccagggttgg ttataggttt catttttggg ttgttgctgg atttatcaaa gcccggtaga 240  
aatcacttgt ccaagaaaat ttgctcatct gccagacctc aacaacagca aatctcagtc 300  
tcaagcaatg ctgatcaaga acttaaaatg gttctggctg ttaggcaaga cctaaagatg 360  
aaatctggaa agattgcac ccaatgtgct catgctgcc ctggcatgta cgctgaatta 420  
atgcaaagt atcggtatct tttgagaaga tgggaacagt gtggccagcc caaaattgtg 480  
cgacttgacg gaatcaac 498

<210> 4965  
<211> 408  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220069d09d1

<400> 4965

gggacattga taaaaaaaga taatgaactt cctgccttat aaggaaagaa agtttaccca 60  
cccctcccaa ttttttaata aaaaaaagtt ttagtattat tccccagccc cttaacagga 120  
tgctgaaaac cccttccatt tgagggttaa aacaggaaag gggctctgatt aaaaattatt 180  
cctttttaac ccttccaatt tttaaacccc ccttgccctt ttgcattggc cccaataagg 240  
gtaagggatc aaaccatgcc ggataacccg ttaaaacaca aaccaagggg caacaagctc 300  
gggggaatta acatattaat ggtggcaaag caggggcatg tttcctgtcc ctgaatccac 360  
aaaaaatttt gggccaagtc caacaacaag aacggttttt tattcttc 408

<210> 4966  
<211> 549  
<212> DNA



<213> Glycine max

<223> Clone ID: jC-gmf102220069d10a1

<400> 4966

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tatggactat cacacaacag ttctgtact gattaccttt gtgagtgcaa ccattattct 120  
catattcatt cggagattat tcaaccaaac ctcaagaatca gaatatgcaa agcttccacc 180  
agggcctcgt ccatttccta tcataggaaa catcttgga cttggcacia atccacacat 240  
agcactcacc aaattctcaa agatttatgg acctcttatg acttttaaac ttggcagaat 300  
aaccaccata gttatctcct ctctcaagt agccaaagaa gtactacttg aaaatggcca 360  
agtcctttct agcagaacaa ttccacattc agtccatgca cttgaccatc acatatactc 420  
tactgtgtgg ctgccaccat cagctcaatg gaagaacctt aggcgagttt gtgcacaaat 480  
atattctctc cacaattgct tgactccact caaatccttc gccaaacaaa ggttaaagat 540  
ttattggat 549

<210> 4967

<211> 526

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069d10d1

<400> 4967

atataaaatt aatcgcgttt gattggagta gcttgaactc gaagaggctg aaccttcttt 60  
aatgttatcg catattgctc ctccatgttc atgtgttctg gaattaaccc atcagctagc 120  
ttccattcaa agttgtgtac aagggatgct actattaaat gcattgtcct gtgagctaata 180  
ggcaatcctg ggcatacct tttaccagct ccaaagggtg tgagcttaaa atcgtgacct 240  
ttaaatacaa tctcacattt caaaaatctt tcgggcataa aaattgttgg attctcccaa 300  
atggttggat ctctgcccat ggccacaca tcttgcaaaa atgtgtgcat ttttaggcac 360  
attgaagcca gatatgttta ccatttcac acacttatgg ggtactaaaa gtggacctgt 420  
gggatgcaag cgaagagctt cctttaccac tgctttgaag aatggcaact ttaatgattt 480  
gtgattcttc aaagggtaca atcttttcaa ttgggtttaga taactt 526

<210> 4968  
 <211> 484  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220069d11a1

<400> 4968

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 cccaaacatt tccaagcca cctctcgtgc cccaaatcgc atgtagctt tggttcaaaa 120  
 acaaccactt gtcctaaaat accacaaagg tccccttctt aagggcaaca ttacgctcca 180  
 tttgctatgg tacggtacat tcacccccac gcaacgctct atagtcacg acttctcga 240  
 atccctaacc tccacgtcat cacctgaatc cccttcagtt tccacgtggt ggaaaaccac 300  
 cgagagctac aggggaggcc cctgcaccct cgtcgtaggg aaccaaattc tcgacgagaa 360  
 ttactccctc ggaaaatcac tcaaaaacga caacctcgta gctctcgcgt cgaatccgaa 420  
 actaaattcg gcgcccggng atcgcgtcgt ccacgtcatc ctcaccgctg ctgacgtggc 480  
 cgtg 484

<210> 4969  
 <211> 373  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220069d11d1

<400> 4969

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 aatacaaaaa aatgactgt ccgaggcaaa cttgcaaatt tctctcttag acacaacttg 120  
 caaattttctc tcttctctca cacgcacaca aaccacatt ctatcgtcac ttttttttta 180  
 attttttaca ctttacattc atctcacacg agtgtcttgc aggtggaggt gagtgggtcc 240  
 cacatcgccg gcagaaggaa cttccggccg cgcaccccca ccgcgttgta gtcaccccc 300  
 gtcgcgttct ccgccagaac gtccccggcg tagcctggat acgncccctt cccgaaaatc 360  
 ccggtgcacg ccg 373

<210> 4970  
 <211> 607  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069d12a1

<400> 4970

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ccctcctctt cacacatttt cttagctctc tccaacaatc cctctcgttc acactttcag 60
attgtgtgaa gatggggggt ggtggccgaa ctgctgttcc tcctgccaac aggaagtcag 120
aggctgaccc tttgaagcgg gtaccatttg aaaaacctca gtttagtctc agccagatta 180
agaaggccat tccacctcac tgtttcagc gctctgttct ccgctcattc tcctatgttg 240
tttatgacct caccatagcc ttctgcctct attatgttgc caccattac ttccacctcc 300
ttcccggtcc tctctctttc gtggcatggc caatctattg ggctgtccag ggttgcattc 360
ttactggtgt ttgggtcatt gccatgagt gtggcacca tgcattcagt gactaccagc 420
tgcttgatga tattgttggc cttatcctcc actccgctct cctagtcccg tacttttcat 480
ggaaatacag ccatcgccgt caccactcca acacaggttc tcttgagcga gatgaagtat 540
ttgtgcaaaa gcagaagtcc agtatcatgt ggtacttcta atacccttat catccaccag 600
gcagagt 607
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<210> 4971  
 <211> 303  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069d12d1

<400> 4971

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aaaaacagaa tatgataaca acttggatgc aagaactgga acaagaataa gcatccccac 60
aatcttgaga aacttagtcg acatgcactg attgcaaac atggggcaat aatcaaactg 120
ttcagagatg ctatatctta ttctgcaaac aaaaacgcta tgctactttc tagatactac 180
taccaacatc agggttcaac aaaattattc ccaataagca agcatgatac taaacagtca 240
caaaggaaag tttaaaccat cccacctgac ggacaagaag cccccggcta cattaatcat 300
cac 303
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<210> 4972  
 <211> 356  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220069e01d1  
  
 <400> 4972  
  
 cccccacaaa aggggtttta tatttgggcc ataaaaagaa tcccggcctt ccaggatgcc 60  
 aaaagctttt agggaacaag accctttttt ttaagggggg ttttaacagg gggccctcca 120  
 aactaaaata aagctcccga aatgttaact taggaaccct tttgggccca atttttatac 180  
 ttggcaccct ttaaaccag taccctgggg gaactttgct gaaacgggaa tcccttgag 240  
 ctttgaaaac aagaactccc ggggtagctt ttctagaaag ggtcttatca aaaccaacg 300  
 aaatacccat gaaataaaga ggggtctatg taccctcgaa caaaaatgcc taaact 356

<210> 4973  
 <211> 467  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220069e02d1  
  
 <400> 4973  
  
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 tttcatacaa acaaaactaaa aaatcctccg caccgcactg ttacctatcc tcaatatgtc 120  
 aacagcggga atgaaaagat agattatata ttaatgtctt ttaaaaatgg aaggatcacg 180  
 tcctatccta taataaatg ccttattcca acatgctagc ccattgcata cttctgagtc 240  
 cagtccttag cagttgtttc atacttgac ctgtctgtct tgtacatatg agcaatttca 300  
 ggcaccaagg ggtcatctgg gtttggatcg gtcaataggg agcaaagga gagcaacacc 360  
 ttagatattg tcaatgctgg gctccactgt tcctttaaga tatcaagaca aatactacca 420  
 ttgctgttga tatttgggtg gaaaaactta gtccataatg caacctt 467

<210> 4974  
 <211> 344  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069e03d1

<400> 4974

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aaccccccg taaaaaaaaa tttttaccaa cggaccgggg ggggtccctt atgaaaggga 180  
cggaacaaac ttttttcaaa gggaaaacaa aacccaatth tggcctttcc ccctaagaaa 240  
acaggtccaa cgggaaaaaa atgaaaacgg gaaccaaggg aaaagggggg ggggtcggct 300  
aacttacccc caaaaaaaaaa actttttttt ttatgggggg gggg 344

<210> 4975

<211> 467

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069e04d1

<400> 4975

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tagtaaatga gtgacatatt ttcactcatc cttctcaaac tctatcttta tgttctgaat 120  
tgtgatgctt acattctcag atcgtggtac caatgtgacc aaaacactat catcattttc 180  
agcatccaag tcctctaaca aatctgttat tcccagtgtc aagctagttt tgatcttctt 240  
gtccatgttc atgttcgaat gggaatgacc cagagtcgaa aagcttcttg caaactctgt 300  
gctctctggt ccaatatcct cgacatcttc atcagtaata tagacatcaa acttcacatt 360  
atcatcccca tcaaactcaa tcccatcaat caccaacact tcttctctt cctccttgct 420  
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<210> 4976

<211> 509

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069e05a1

<400> 4976

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aaccatttc aattcacct tccaatcgtt caacgcaccc ttcaatttcg cttccgagtg 120  
attcctcccc ccaaattcag aattaagggtt cggctctctgg tggcgcaacc atgccggaga 180  
tcggccaggc ggcgggtggct gcggcggcgg atgacaccgc cctgttcgga aaatacgagc 240  
tgggccgcat cctcgggtgc ggcgccttcg ccaaagtcca ctacgcgcgc aacgtgcaaa 300  
cggggcagag cgtggccgtg aaaatcatca aaaaaaaaa actcgccgga actggcctcg 360  
ccggaacgt gaagcgcgaa atcacgatca tgagcaagct ccaccacccc cacatcgtgc 420  
gccttcacga ggtcctcgc accaagacca aaatcttctt cattatggac ttcgtacgcg 480  
gccgcgagct gttcgggaaa atctcaagg 509

<210> 4977  
<211> 484  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220069e05d1  
<400> 4977

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ctactattac tatacgacgt ggttgaccca ccaagcaaca atggcttcaa cctctcctcc 180  
cacacacccc tcaccgggc gtcgcctccc ctcttcctta cctccaccac cgcgagctcc 240  
gccgtgagcc ggtaaacctc caccccaatc ccaaacctcc cattaaatcc ttccaactcc 300  
acccacact ccttctttca cctcacgncc atcctcggcg nncgccccgc cttcttcgcc 360  
gncttcaaaa ccctctcgg cggtcccgc gtnaccaacc tctcccccca ctcccccca 420  
aacatcccgg acanatccaa ccccgaagaa aaagatatca aatcaaaagc gttcaaattc 480  
acca 484

<210> 4978  
<211> 373  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220069e06a1  
<400> 4978

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 tcttttttatt caagttattt attgttgtga atgtctggga gtgaacagat tcttgagtga 180  
 gtattttaaac tgtaagatat gggaagataa aattcaaata aagccattta tggcctatgg 240  
 ggcgtgtaaa taatacccta ggaagtttgt aattatagtt catggatatt tctttgcaat 300  
 tcttaacatt gtgtttggtc agaagtgtaa acaaaaaatt tgaaaaaaaa atagaaaata 360  
 aagttatttt att 373

<210> 4979  
 <211> 373  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220069e06d1  
 <400> 4979

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 cacaatgtta agaattgcaa agaaatatcc atgaactata attacaaact tcctagggta 120  
 ttattttacac gccccatagg ccataaatgg ctttatttga attttatctt cccatatctt 180  
 acagtttaaa tactcactca agaatctgtt cactcccaga cattcacaac aataaataac 240  
 ttgaataaaa agaacatata cgaacgaagt tgctgagcag gcagagacga gaattcaca 300  
 tttcacacca tctggacca aataccgtgg cttggaactt cttgatggac cacaacagc 360  
 agatagaaac ccg 373

<210> 4980  
 <211> 525  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220069e07a1  
 <400> 4980

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 gaggacacag aaagcaacaa tcttcatcaa tatactcatc ttgttcacct cagctcactc 180

cttccttcat cttcctgcag ctcttctgcc aaagggtccca aaagaaaagc atcattagaa 240  
 gtggtacaca aacatggggc atgctcccaa ctgaataatc atgatggcaa agcaaagtct 300  
 acaacaccac acagtgagat tctgaaccaa gacaaagaaa gggttaagta cattaactca 360  
 aggatctcaa agaacttggg ccaagatagt agtgtgagtg aattggactc agttacacta 420  
 ccagccaagt ctggtagcct tattgggtct gggaattact ttgtggctgc tggctcttga 480  
 acaccaaga gggactttgc actcatcttt gacactggca gtgat 525

<210> 4981  
 <211> 396  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069e07d1

<400> 4981

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 ggggggaaaa tatccccccc cccttttttt tttggggccc aaactttttt ttttttaacc 180  
 ccccccttgg ggggtccctt ttttttttag gggccggggg cccccccctt gggaaaaagg 240  
 gggccccctt ttttttgga ggcccggggc caaaaagag gggttttttt ttcccccccc 300  
 caaagggttg ggttaatttt aaatgtgggg gggccccaga acaaaaccaa attttttccc 360  
 cccaacaaa aaaccaaacc tttttgggtt tggggg 396

<210> 4982  
 <211> 135  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069e08a1

<400> 4982

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 cttgaaagtc aattt 135



<210> 4983  
<211> 151  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069e08d1

<400> 4983

gtgggttcttg ttgtcttatt ttttcttctg tctttaaatt agtttcaaaa taaggggtct 60  
ttctgatttt ttgcaatcta tatttttcta ttaattttt taaattcgta atttttattt 120  
tgcgcatata taaatattaa atttattatt a 151

<210> 4984  
<211> 566  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220069e09a1

<400> 4984

ctttgatagt ttgattagct ctaataaggt taaggaccag agagagaaag agaaataaga 60  
agaaaaacac aagatgggtt attggaagtc taaggttctt cccaagatca agaaggtttt 120  
cgagaagaat aagcaccaag aaagctgctg ctgctgaggc caccaagtcc tttgatgagt 180  
caaaggagga atacaacaaa gcctttgaag aaaagaagac tgaacttcaa accaaagttg 240  
ttgaaatata tgaggcttca tcaactgaaa tcaagagttt ggtaaagaa cccaaggaag 300  
ctggtttgaa gaagaactcc acagaagtcc agaagttcct agaagagctg gttaaaattg 360  
atttccttgg atcaaaggcg gcacttgaag catcttcaaa gtttggacca gccttggtt 420  
caggttcagt tntctttgtg tttgagaagg tgtccactnt cattgctaca gaagaaaaag 480  
aagttgaagc ccctcctgca gtagaaacta aaacagaaga agaaacagta gtgtngtcaa 540  
agagagggag acagtgggtt aagaag 566

<210> 4985  
<211> 415  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069e09d1

<400> 4985

gaaccaaact aaacgtcaca attccttgac tgaaaaatga ataattattac aaaacgattc 60

atcataaaaa cattaattga catgcatatc aatcaccaaa tctgcaacaa tatcaaacta 120

agcagcacaa aaccaatttt acacaggaat aaaagaataa gggaatggta tgtgacaatt 180

ttggactatt tgcaaaactaa aaatgcccggt atatgatctt ctgcatcttc atgaagcagc 240

tacatatata tagcttctgt tcaaaacgaa attttcaagg ctttggggggt tctgctgggt 300

caacaggttt ttcttcctct ttagcagcag tctcagcttg tttttcttcc acttttttct 360

catcacttgc ctgcctgct tggggatttt cctcttcctt tttttcttct tcaac 415

<210> 4986

<211> 612

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069e10a1

<400> 4986

gttgatttgt acaagtttga tccatgggtt cttccaggta aggcagtgtt tggagagaag 60

gagtgggtact ttttagccc aagagacagg aagtaccga atgggttcacg accaaacaga 120

gtcgcgggtt ctgggtattg gaaagcaact ggaacagaca agatcatcac cactgaaggt 180

agaaaagttg gcataaaaaa agcacttggt ttctacattg gcaaagcacc caaaggctcc 240

aaaaccaatt ggatcatgca cgagtatcgc cttctcgatt cttcccgcaa acacaacctc 300

ggaaccgcaa agcttgatga ttgggttcta tgctgtatct ataagaagaa ctcaagttca 360

caaaggttga ggctaatttt ttggctatgg aatgcagcaa tgggtcatca ctttcttcat 420

cgteccacgt ggatgacatg ctgggatcgt tgccggagat aaatgaccgg tgcttcaccc 480

tgccacgagt gaactcactc agaacaatgc accagcagga tgagaaattc gggctctcga 540

catgggatcc ggtttttctc gatcgggttac ttgaccagaa aaccaagaa tgggaatatg 600

atgcatgact tt 612

<210> 4987

<211> 434

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220069e10d1

<400> 4987

agcaaagggg ggacatattt tcattacatg ttaatcaggt tgtctacaag gatgcatggg 60  
acactagcca aataaaaata ccaatatcta aagttctaaa cttaaactttg gaaaatagtt 120  
gctatgtatt aatgctttga agcacaacgt gattcatggt taggcaataa tgtcttacia 180  
agcaattact tttcaacatg cattgtttgtg gttggggggc aatcaccatt gcgtcctttc 240  
ttagtttcat aatgggtcaa cgcctcttta tcttgttcta gccgaaaagt atgacaaaaa 300  
ttgcaatttt tcctttccaa gggggaatca ataacacaaa ccataacaat ggtcatagaa 360  
ttcaaattaa actaaaatcc ccaatttttt acacaattac actttttgat ccttcacttt 420  
acttcctaac ccg 434

<210> 4988

<211> 550

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220069e11a1

<400> 4988

aaaaagttag attccagtaa tcagccagag caggaatttc tttctcaggt ctccatcgta 60  
tcaaggctaa agcatgaaaa cggtgtcgag cttgttaact attgtgttga tggctccttc 120  
cgtgcccttg cctacgagta tgctcctaaa ggatcccttc acgatattct acatggacgc 180  
aaaggtgtca aggggtgcaca acctgggtcca gttctctcat gggctcagag agttaaatt 240  
gctgttggag cagccagggg acttgaatat cttcatgaaa aggcagagat tcatatcatc 300  
catcgttaca ttaagtctag taacatactt ctttttgatg atgatgttgc aaaggttgct 360  
gattttgatt tgtcaaatca agcccctgat gcagcagcac gtcttcattc tactcgtgtt 420  
cttgggacct ttggttatca tgctccagaa tatgcaatga ctggacatct cacttaaaaa 480  
gtgatgttta tagctctgga gttatactgc tggaactctt aaacgggcgt aaaccagtgg 540  
atcatacact 550

<210> 4989

<211> 436

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069e11d1

<400> 4989

ggagaaaaaa cctttttttg aaatagtaaa gcaactagac atgtgatgta catgacaagt 60  
aatattataa attcacttgt acacgggtta ttggaaaaac aaacaaaca atccaaatta 120  
agttttcaaa ccataaactt aaccatttat gataggctct tgccacctac catcactatt 180  
ttttttatat cagctataac atgcttagtt gagatacaaa ttttaataacg caaaatatac 240  
tttaatacta tatgcttcaa attatgtaat actgacacgt gtcacaagga caattgggtca 300  
acgcactcca gtctgaaaga agaaatgaat gattttggaa ttacatggtt ttattacat 360  
cttgggtgct tcctttgagt gaacagaacg agtattcagt agaggctgta gagctttcac 420  
tataatgctc atattt 436

<210> 4990

<211> 547

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069f01d1

<400> 4990

gaatgaagtt taattaatac atcatgcaga atggatacca tctcaciaat tatgattaat 60  
aagaataaga atcaaaatta aaatcaaata aactggatac caaccataag gcccgcgacc 120  
tggtatacga aactttcatt acattaatgg gttgttggtc atagggtggg agagaaacaa 180  
ctatgtacag caacaactac aaggtgggat tgtttttaaaa aaaaaaaaaa gcaaggtcga 240  
tatcacccta tatcacctca ctcaaaaaca caattgatta aatactaggg attgtataac 300  
tgggcaggca tataactacta attccgggat ttccaaaatt ggacggatac tactctttta 360  
atgccatctt atatatttga tttgaagcag tcaactgataa gcagcagtca gcctcgattt 420  
catcttcaag ttatgttttc caactggatg gatggcttca tgacagttcc ttactttcca 480  
tcccagaatc tgaaagctat ggaaatcaat ctactaatca taggcgtcag gccatttctg 540  
aattgac 547

<210> 4991

<211> 477  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069f02d1

<400> 4991

gacaaatctt gatataataa attactggat atacaagttt aaatgatggc atatttcgtt 60  
ccaatacaaaa cattgatcca gtaacttgga ggatacaaaa caatgcgctg aattttcaag 120  
tatcgacaca tgtcatttgt tccctatagc ttattgcaca tagttgacgg tgagcctttc 180  
ttttttattc tcttgagtcc tgaccacata aagaatacca atcttgaatt gatgctcctg 240  
tattctacca tgactcattt tcaattcctg tttttgttac acaacacttg ctttagccat 300  
tcttttctgg ccccgagtag ctagtagctc agaatcctgt acaatagcct gtgcacaaaag 360  
cttcccagaa agaacagcgc cttccattga agctaaatat ttttgttttg tgtaatctcc 420  
agctaaatag aaaccttcta aaggagatct ttgtaaggga cgacaagggt cacaatt 477

<210> 4992  
<211> 330  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069f03d1

<400> 4992

aaaattgaac tacaagtgtt ctttatgctt ctatggataa aaataaatta caaaatctcc 60  
cctttattca gtatcagaat ctgggtctcc atccacaata tcaggaaaat catcttcac 120  
cgccagtgcc ttatcatgtt ccaattgaaa agcaaattcc tcaaaaatat tagagcctga 180  
ggttctatgc cataaactac tactcggaga agagaatttg aagtctttat taaccgagct 240  
tccatgtctt gattccatat gactggcttc attatgagga atggagttgt ctgaaacaat 300  
cttctcagac actttatcat cagctacatc 330

<210> 4993  
<211> 96  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069f04d1

<400> 4993

aaccaataaa tttgagacat ctacttctat agtgaaaata cggactacaa atcagtttca 60  
aatgacaacc atcaaatttg gaacatacat ttaaac 96

<210> 4994

<211> 510

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069f05a1

<400> 4994

agcgccacca ccattatact ctctgttgct aatcatggct agcaaattgg ccttcacact 60  
gacatacccg cttccactta caccaatctc ttccttgtcc tctctttctg cttctcgact 120  
ccaccttctt caattcaatg gccgccacat atgccttcgc cctcggtat ttctgttttc 180  
tcccatggcc acagccgatc aagacaaggt tgaggaagat gctgccgttg ttgatagtaa 240  
aatcctacaa tattgtagca tagacaaaaa agagaagaaa tcagttgggtg aaatggagca 300  
agaatttcta caggcactgc aagcattcta ttatgagggg aaggctatta tgtcaaata 360  
ggaatttgat aatcttaagg aagaactcat gtgggaaggg agcaccgttg tgatgctaag 420  
ttctgatgag caaaaatttc tggaagcgtc tatggcttat gtgtctggaa aaccaatctt 480  
gagcgacatg agtctgatga gttgaaactc 510

<210> 4995

<211> 342

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069f05d1

<400> 4995

aaaaaaaaatct tttttttttt tttttttttt tccccccccc taaaaaaaaa aagggggccc 60  
ccccaaaaaa aggcaaaagc cccaaagggg cccccaaaaa ccaaccctg gaaaaaaaaa 120  
aggcccccaa aaaattaaac cacaggggga aaaccccccc cctacaaaaa aaaagggggg 180  
ccccaaaaaac ccccccaaaa aaaagggggg ggggaaaagg aacacacggt ttcggggccc 240  
aaaaaaaaaaa aaatgcccaa aacctccaac gggggggggg cacattcaaa aaaaaggaaa 300

catgccccaa aacggcaccc cattaaaacc gccccccccc cg

342

<210> 4996  
<211> 581  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220069f06a1  
  
<400> 4996

atgaatactc gaagtgtaaa gttgaagagg caatgtctaa tgatagtatt cacaaagcaa 60  
agttgcgaga gagtattggg tctgaaagag tagcacaaat cctcagaaga tcaccaagggt 120  
caagtcaaaa aagtatggac aatgggtcaag caaacactag tcaatataca gtcagaaagg 180  
atgacataaa cattggccac agggatgaca gtccaccaga gggaaacact gctgcatttc 240  
agactattaa gaggaagggtc aagacacctc agaaacatga gaaaaataat tatgaaggag 300  
aggcattgaa agcccgaaag tcacctagag atttaagcaa gaaaaatgct caaggagatg 360  
caggtgaatg gacagcaggc aagaagactg ataaccattc aagcaacagc aaaaatgtga 420  
aggtcagcaa tattcctcag tcagtgggag catcatgtta tggctttaag aaagaaaaat 480  
ctgaagagat gtttcagtgt ggccagatat gggcaatata tggatgatagg gatcatatgc 540  
ctgataactta tgctccaata agatgattga atgcactcct a 581

<210> 4997  
<211> 175  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220069f06d1  
  
<400> 4997

aacataatat ctgttgtaac aaaataaaaa aacagaggga aaaaaacacg aaaaaaaagg 60  
acaaggggga caaaaaaggc aaaaaccag caaaaggaa agagagaacc aaaaactgat 120  
gaaggaacaa gccaggacaa caaagggaga agaagaaaaa cagtgagggg aaaaa 175

<210> 4998  
<211> 508  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069f07a1

<400> 4998

actcataaca caaagcacia agcaaagctc atccttgagt taaaaaatgg cagcagcttc 60  
ttccatggct ctctcatccc catccttggc tggcaaggcc gtgaagctgg gcccatcagc 120  
cccagaagtg ggaaggggtga gcatgaggaa gaccgtcacc aagcaggtct cctcaggaag 180  
cccatggtag ggcccagacc gagtcaagta cttggggccca ttctctggcg agcccccgtc 240  
ctacctaacc ggcgagttcc caggcgacta cggctgggac actgctgggc tttccgcaga 300  
cccagaaacc ttcgccaaga accgtgaact cgaagtgatc cactccaggt gggccatgct 360  
cggagccttg ggctgcgtct tcccggagtt gctgtccgc aacgggggtga agttcggaga 420  
agccgtgtgg ttcaaggccc ggtcccagat cttcagcgag ggtgggctcg actacttggg 480  
cacccaagcc tgatccacgc tcagagca 508

<210> 4999

<211> 470

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069f07d1

<400> 4999

gtaaaaagca agtaacatta agttggattc ggatacacia gataattcac attatctgaa 60  
gtacttcacc aaacacaaat ctaaaaactc tcaaaagtca tttcgttctt tgacgctcac 120  
tttccgggga cgaagttggt ggcataggcc caggcgttgt tgttgacagg gtcagcaagg 180  
tgatcggcga ggttctccaa tggacccttt ccggtgacaa tggcctgaac aaagaagcca 240  
aacatagaga acatggccaa tcgtccgttc ttgagttcct tcaccttaag ctcagcaaaa 300  
gcctctgggt catcagcaag gcccaatggg tcgaagctgc cacctgggta gattgggtca 360  
gtgacctcac cgagggggcc accagcaata cggttacctt caacggcacc cattaggata 420  
acttgtgtgg ccagatggc gaggatgctc tgggcgtgga tcaggcttgg 470

<210> 5000

<211> 556

<212> DNA

<213> Glycine max



<223> Clone ID: jC-gmfl02220069f08a1

<400> 5000

aatgcccact ttttttcttc caacgctcct cctccttctc atagccttcg ccacctctgt 60  
ctccggccgc cgtgacctcg tcggagactt tctccggctg ccctccgaaa ctgataacga 120  
cgacaacttc aagggcaccc ggtgggcccgt cctcctcgcc ggttccaatg gttactggaa 180  
ttacagacat caggetgatg tttgtcacgc ctatcaaata ttgaggaaag gtggtctgaa 240  
agaagaaaat attattgttt ttatgtatga tgacattgca ttcaatgggg aaaaccaag 300  
gcctggagtc atcattaaca aaccagatgg aggtgatggt tataaaggag ttccaaagga 360  
ttacaccggc gaagatgtta ctgttgataa cttttttgct gctttacttg gaaataagtc 420  
agcactgact ggtggcagtg ggaaggttgt ggacagtggc cctgatgatc atatatttgt 480  
atactatact gaccatggag ggtctggggg gctcgggatg cctgctgggc cctacttata 540  
cgctgatgat ccgatg 556

<210> 5001

<211> 499

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220069f08d1

<400> 5001

gaataaaaac acacatcata ttactatgtg ttgtcatata tgcattgtaa tgagtggata 60  
ttccaaagca attggtccct ttatccctcc ttaatcctta tgccgtaa at ggcaccatcc 120  
cttgtaaatt gtaattgctt cttcagaaat agaattatac aaaggtagtt gcaatatcta 180  
tttgccaaac tataaatgta aagacccttc ttcccaatcc tagtagtgct ccaattgtat 240  
ttacaaaggt gggacaagat atgtatatac aagtacaacc atgtaacata atgtaacaat 300  
aatcatactt tggctctttac tagtgacat tacagggagt tattatgcac tgaaaccct 360  
ttgcagagaa ctccaggat tggaaggaat actgacacaa gcttgtgctg aagcctcagc 420  
catttgttca ttctttatcc ctacattgca gatgtttgca aaggacctca tgtgtttcat 480  
cccgtattga gacaaggat 499

<210> 5002

<211> 513  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069f09a1

<400> 5002

taacaattga agagtgtttg acgactcaga gagcacattg cattggcgac accgcgagcg 60  
acgacggaaa ttgaattgct cgtgcgcgtc ggtgcgtgat cgatcgaagg acgaacgatg 120  
tcggagatgg cgagcccaga tcccagagga ctcgacggag tccgcatgac gtggaacgtg 180  
tggtcccgta cgaaggttga atcgagcaag tgcgtgatcc ctctggcggc gacgggtggct 240  
ctgatccgtc cccaccctga catccccgc ctccagtacg cccctctccg ctgcaagacc 300  
tgctcctccg cctcaaccc tttctccgc gtcgacttca ccgccaagat ctggatctgc 360  
cccttctgct accagcgcaa ccacttcccc cctcactacc acgccatctc cctatctaca 420  
attccctgaa ccctttaccc gtcttactct tctgctaga cacctgcctc atcgacgagg 480  
agattcactt cctcaaatgc gtgcttcgtc gtg 513

<210> 5003  
<211> 401  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069f09d1

<400> 5003

aaaagtatcc atttccatag agatgagtcc tatacgctta attcacaata tacaatacaa 60  
aacagtaaca agagaatgat atcaaactca acatgacaaa atggctttcg ttactttgct 120  
acctggggaa catataaaag taaaagaact atataaatta atccagctga ggaacccaaa 180  
ttttcagatc tgggccaaga caaatggaaa aactgagtca aaaatatctc cctcatttgc 240  
tattatgctg ctgtagcagt ggtgggggct cttaactcga tttctatcc tttctttccg 300  
caatacccaa acttaacaac atacttttga accctttatt ttctccacaa agaaaaatcg 360  
atcagaaccc taaagaatta tgtttttaggt cttccttatt c 401

<210> 5004  
<211> 553  
<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220069f10a1

<400> 5004

gttcttatat tcaattcagg tcaactggtg acacggacta agctttttga cgtgggctgg 60  
tattttcagg ttgataactc actgaagctt ggaatgacaa ttaactctgg tttcaacaca 120  
gctttactca cctgcgcata ttgggtagag agtacaatta acacaaacag gacaagagta 180  
tttttccgca ccttcgaatc atctcattgg agtggacaga atcacaattc ttgcaaagtg 240  
actaaaaggc cttggaagag aactaatcgc aaagagagaa acccaatttc aaatatgatc 300  
aataaagttg tcaaaagcat gagtgctcca gtaacagtta tgcattgttac accaatgact 360  
gcatatagaa gtgatggaca cgtgggcact tggagtgacc agccatctgt tcctgattgt 420  
agccattggt gcttaccogg tgttcctgat atgtggaacg aaattctact ctcgtatctg 480  
ctacaaaaat aaggagcana ttagcatgag aggtaccaac atgttagacc ttatatcatt 540  
taagccttat ata 553

<210> 5005

<211> 423

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220069f10d1

<400> 5005

gtgaatgcc aattatttgaa atcactatac aaacattatt cattttccaat gtacatttgg 60  
tacccccogg tgacgttaaa ggctaacagg ttaatcctga ttgctgagta caattgagta 120  
ccaagctata tatggcttaa atgatataag gtctaactg ttggtacctc tcattgctaat 180  
ttgctcctta ttttggtagc aaatacgaga ggagaatttc gttccacata tcaggaacac 240  
cgggtaagca ccaatggcta caatcaggaa cagatggctg gtcactccaa gtgcccacgt 300  
gtccatcact tatatatgca gtcattggtg taacatgcat tactgttact ggagcactca 360  
tgcttttgac aactctattg atcatatttg aaattgggtt tctctttttg cgattagtgc 420  
tct 423

<210> 5006  
<211> 522  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220069f11a1

<400> 5006

caaaaaacag attactagaa gcactatcaa aaatgtggca acaagaggca gcttcaagag 60  
ctgcaatgga aaatggaacg gaggaaggac ttggagactc ttctgaatca gttcctgctg 120  
cttttctca agacacgcga atggaggaaa ctcatgaacc tgtaggaac aatccccctc 180  
ccattgctcg gcgctaccaa gatcagatgg ttccaagcat cacttcttcc ttgttgagag 240  
tggaagagga agaaacgtct tctgatcttc gaaactcagc agaagagagc agcagagctg 300  
aagtgccagt aactgcaaat gcacaacaaa atgcaggagt tgcattgaac gaacggatgt 360  
tgcagaccac taataggaat acacaaaccc aatacaatac tacgatggac ctgagaaatg 420  
tagctgatga ttctgcagta gaatcttcaa gtggtaccag gagagaaagg gatggaggct 480  
tagttccagt atggtctcca ccagcttcca gntactcaga ac 522

<210> 5007  
<211> 496  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069f11d1

<400> 5007

aaataaagct cggatcataa ttaatatatc cgccttaagt gaaagcacia atctgagttt 60  
attagcagac caaagatcct atggggggctc tttctccctc actacacaaa ctatactata 120  
cagcaagttg caaatattgt acaagaaagc aatagggact gcagatgaac ttccgtatga 180  
attgaaattt ccatacacat tggagggtcag ctactgataa aagagtagga aattaaaca 240  
tgtgtgtcca atgtggcttc aacacccccc tttctctcaa gtctcaacag aagagtggta 300  
tcgtaacttc cacctccctc catctagtct aattgcttta tatatgaatt acccagtttg 360  
aggtagctgc ttccaattca gcatttggtg agattgagga tgcctttgca agtaagatga 420  
actgcttggt ataccatttt catctcctac aaattgttct gagtaacttg gagctgggtg 480

agaccatact ggaact

496

<210> 5008  
<211> 337  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220069f12a1  
  
<400> 5008

cccgccctccc caccggcccc aggcagcgag gaaattgaat tgggtgcccc cgtgcccgt 60  
cctgctaattg aagtggccgt tgaggagcct gttccagctg agaccaccac tagcatcgcc 120  
tctaccctta gagtgccctgc tatcattgtt gtcacgcta gcttcttcgc cttctaagct 180  
gctacctttt acgagctttt cttatatgtg ttgtgttaca ccaccttgag tgttgtgttt 240  
gtgaaatgac tgttgtgttat tgaatgaatg aattaactta aaaaaaaaaa aaaaaaagaa 300  
taaaaataaa aaaaaaaaaa aaataaaata agataag 337

<210> 5009  
<211> 266  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220069f12d1  
  
<400> 5009

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aaaaaagctc ggaaaggggg gcccttataa aggggaaaaa acttgggatg acaacaatgt 120  
ttggggggccc ttttaggggg ggggggattc ttgggggggg tttaggggga aaagggtcct 180  
taaggggcct tttttataa gggggggggc cgggggcccc caaataaatt tcctcccttc 240  
ccggggcccg gggggggggg ggcttt 266

<210> 5010  
<211> 482  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220069g02d1  
  
<400> 5010

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gttctacagt acagcccaga ttcctcctct caatactttt ttagcaaaca ttgaaccttg 120  
gaacaggcta caagcttggt gacttggtgt cattaacgtc tataggtgtg ttgagtcaat 180  
actttcatta tttacaaatt ccatagcgga gaagtgggcg gtggctgcat gtctgaaact 240  
cgttttgggt accaaattat gtacgtgtga attaatcaac aattaacctt tgaaatgatg 300  
aaccacaatg tataatggaa cctacactcg agggattagt tgctgttggt agtttatgat 360  
tggacttgcc atttaaaaaa ttgggatcgg tttacgaagt aacttaacca gaacggcaaa 420  
acatgatccg gaaaatttcc aaagatcatt attggcgctt cctttgatac agcgaataac 480  
ca 482

<210> 5011  
<211> 407  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220069g03d1  
<400> 5011

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catttggaag ggatccatag gatttgcccc ttaggacatt cattcccagt tctatattga 180  
tattagaaat tttgcttcaa cgccatgaaa ttattggaaa aaagagtctc cctttccttt 240  
ctcacctttt tggatgcat aatcccctat aatgacaaaa aaatttaact tattctatga 300  
gaacatagta tgcctaata gttgtccaag gatcgctctc tgcaatgact tcagaagggt 360  
cataaacttc tggctctgaa ctttcttcac ttgtgcttga atcagca 407

<210> 5012  
<211> 526  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220069g04d1  
<400> 5012

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gggaaacaag aggaaatatg tttcatgggg aagtttgtga ggaagagaat gatatagaag 120  
 ttacagagaa gagaggagga aaaaagcttt atgaacattg tggataaaat tcagatatct 180  
 gcttgctcag aagtaggttt catagcagac acacactaag aggcataata ctagaaatga 240  
 ctttcaaatt ttttcatcca ttgagatatc ccactttttc gatcaaagcc tggatatcag 300  
 caccgctact cccctcagtt gcctcgacga tgttggggct gtccaatggc gtgacatctg 360  
 aaagagggtg gcttctgtta ttatggagtt gactgattgc actgcttccc actcccttca 420  
 gtatgacact tttgtgtagg ccaccaagaa gtccttcgta atctgtgtca ccgcattctc 480  
 caacgaacac caccatcttt gacagttcan aaccccatcg aacata 526

<210> 5013  
 <211> 580  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220069g05a1  
 <400> 5013

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 gtcgccacgc gctgcaccaa gatcgaaccc tcttcaaact ccagaaactc cgtgtatttc 180  
 cgacaggtgt tcgcggcggt cgtgaagcgc gtggatttta aggttgtgaa gcgcgtgggtg 240  
 ataacgagcg aggagtttcg taggtttgtg atgtcggaa cggaggaagtc gaggatgcgg 300  
 tcgatcgagg agaaccagtc gcgaataatg gtcgttgccg gcggtgatag tttggagaaa 360  
 gtgatgggtg accgggcggt gatggagttg gtgaaggaca agaaggtggc ggcgtttaga 420  
 gagttgtggg agatggtgtg cgacgattcg gaccgcgcgt gttatggacc tgcggaggtg 480  
 gagcgtgcgc gtgagatgaa ggccattgag acatttctga taaccgatga tctttatagg 540  
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<210> 5014  
 <211> 385  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220069g05d1

<400> 5014

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attggcgaaa ttaaaaagac attaattaaa catgacaaac aaataactaa aaccaatatg 180  
tacaataaat cagcaccat ttacatcttc gagttcaggc aagggaaacc tgagaattgc 240  
cgcaacaccc gtgagttgag cgagttgcgg tgcataaaca tgcacgacg aatacaccaa 300  
agcctttcct tcacctctt tcaccgactt caccaaactc ggggactttt ttctcgtctc 360  
aacatcttcg ttcctataaa gatca 385

<210> 5015

<211> 385

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069g06a1

<400> 5015

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agatcgtaca tcgatgggaa aagcgctatg aactaatgag gacgattgat caatatcgag 120  
cgtggcatta gtatcaatag aagaaattca tgggcttaac gagactaact catctgcttc 180  
agacgtttca tggtttcac acttccattt caggttttcc ggatcttgac ttggaataag 240  
atcatagagg ctcttagatg cttggattgt acctctgggt ggaggaaact ttgtgtattt 300  
ttaaagaatt gacaagggt aatgccaatg gatataagg atgtgtctta tgcacctgaa 360  
agtaccagat ccttacctta cccta 385

<210> 5016

<211> 275

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069g06d1

<400> 5016

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tcagaaacct tgggaaatat ggctcaaaaa ttcaaaaac tccaaccacc ttaattccct 120



gacgtattta taaaccttgc taaaacgctg aagggggaag aaaaaagcta accccgaaca 180  
attataaatc aaatttgccc cattgtctca gctctggggg aaggtctcgc cgacttcggg 240  
cccacatgtg gtctattatt agaggccccc tttgg 275

<210> 5017  
<211> 545  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220069g07a1  
<400> 5017

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aatcgctcac tattgatccg attccaccgt catcgatctt ttctgcagcc accgtctatc 120  
gcacttcggt gccgtcattg gcgccggaat tctgaatggt aatgaatttg tgaagtaatg 180  
atgagtggaa gagctatcca ataacatgac atgaactgca aattcttgta tacttgaagg 240  
ttaagacagc ttaaacaata caaggatggt ttcggttgctt tatggactat ggaagtactt 300  
gttcagcaag atggagcttc atgtactcat tctggggatt gacaaggctg gcaaaacgac 360  
tttgctggag aagatgaagt cgggtgtactc aaatatagaa ggcattcctc ctgatcgaat 420  
tattccaaca gtgggattga atattggctg cattgaagtg gcaaatagnt aacttggtgt 480  
ctgggaccta ggaggtcagc ctggtcttcg ctcaatatgg gagaaatatt atgagaggca 540  
catgc 545

<210> 5018  
<211> 379  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220069g07d1  
<400> 5018

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agtacctgga acaatatggg agagcagtgc ttatacaatg gtacagatag gaaagtaa 120  
taatacagtc aaatagaaac cggaccaatt acaatttagg gttgacaaaa gtatgcccgg 180

aggcagaagc aaaaaaccct tcgggacagg ccattatntt acagattggt tttaacaagg 240  
atgttaaaag aaaaattggt ttaaaagata ctggagaggg gagactgggc cttttatgaa 300  
acgggtgtgt taaaaattaa accatggcgt taaatttcaa gggtcagttt aatgcgacac 360  
caagttatntt ttttacctt 379

<210> 5019  
<211> 532  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220069g08a1

<400> 5019

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ccatccatct tcaaaaagca aagaatttga gtaatgggtt ttgaaattca agtaatttga 120  
gtcgtgggtt ttgaaattca cgcgatttgg gacgtgagtt tttgaaattc gaggccattt 180  
ggttgatggg tttgggagga atctgaggaa aattttcaat gtcggagagc gatcagcgtc 240  
gtcttctcgg ggcttccgag gatgacgtgg agtctggagg gtcggaattg gctttggcgg 300  
tcgtcaatgg cagcagtggc aacaacaaca acaacaaca aggttttagg gatttgtaa 360  
ggttgtcggg tcaccgacac agtttgaagc gcattgagaa agaagaagat agagatagag 420  
acagggatag gggatatagat agagatagaa gagatcaaaa tcggcatctc cacgatgtgg 480  
atcttgattc ttctgctgat gtgcttgggg acagtgcacc tnctgaatgg gc 532

<210> 5020  
<211> 405  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069g08d1

<400> 5020

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aattatgcaa aagaatctca agttatgatt tagacttgtg ggggttgga atactttctt 120  
ccttatccaa taaccattat tttggcacta gaatatacat gaattatata gtctcacttt 180  
tgaaggcaac caaggagct tcttgctaca acctcactat ttccttcata agagcaacaa 240

aaaagattga ctacagaatt agtgcccatt tgttggtttc acagccaaat tggtatctgt 300  
 cctattttga tgggctgtct gcctgtgatt aatatctttc ctgagacatt gccatagtgc 360  
 atcataatga agaagaccaa caattctcct cttaattttc ctact 405

<210> 5021  
 <211> 559  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069g09a1

<400> 5021

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 tcttctcctc cggacactag caagagcata aagctagagc gatacaacag ctacatcagg 120  
 agactcaaca gcaccaaact cctcaacgcc tcctccaaac tcctcttccg tgccactatc 180  
 ttagtcgcac tcatcctcgt ctctctcttc accttcaact acctctccct cgccccagac 240  
 ttcacctccc accgccacct ccactccac tccacttcc tctctctcct ctctctcttc 300  
 gcctctggg agaagcaggc cggccactcc tccacctc ggcgccccaa cggcctcacc 360  
 gtctctgtca ccggcgccgc tggcttcgtc ggcagccact gctcccttgc cctcaaaaaa 420  
 cgcggcgacg gcgttctcgg gctcgacaac tttaacagct actacgatcc ctccctgaaa 480  
 cgctcccgtc aggcaatgct ctggaaacac caggttttca tcgtggaagg tgacctaacg 540  
 acacccttg cttgagaag 559

<210> 5022  
 <211> 427  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069g09d1

<400> 5022

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 ggacacggac caccacaata attaagaaaa aataatagta ataattgaag aaaaaacaag 120  
 aaaaatgatc caaggtaggt atttgaatta tttgtttttc tttgtttctt gtaaaaaaca 180  
 aaacaagggc atgtggtgtg aggataatta aggcttgggt acgtacgtag gtgattattc 240

attgtcaagg tgatattcct tttttagcct ttgctggagg ccgtaataac cgaggtagca 300  
 cttgacgaac ttcttgagac cgggtggcgag atcgggtggtg ggattgtaag agaaatccct 360  
 gtaggccaag ctgacattgg cgtgtgtgaa gggaacgtcg ccgtttgatg gcatcttaat 420  
 gacgtgc 427

<210> 5023  
 <211> 514  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069g10a1

<400> 5023

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 cgttgaagac cagcggcgct accgaccgga gcaacctcgc ctccctcaca gaacttaaaa 120  
 aacccgactc ttcaaattta ctctacttca taccgaagct ccatagtga caggaactca 180  
 gaaacaaatg ccattggata tcttaatctt gtgactgaaa aaatatataa tgtctgaaga 240  
 ggctggatct atgttggttag tttatgatga tccctccgac caacgctcac tatctttgga 300  
 tgatgcaagc agcacagagg agtcacctga tgaaaccagg ctctccttgg aaacaacaaa 360  
 tgatgctatt ccatatattg gtcaaagggt tgccactcat gatgctgctt atgaattcta 420  
 tagtgaattt gctaaaagga gtggcttctc aattagacgt caccgtacag aaggaaacga 480  
 tggtgttggga aaaggactta ctagacgcta cttt 514

<210> 5024  
 <211> 352  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069g10d1

<400> 5024

ataaaaatag cagatatatt gcaaatacaa aaatgcgtat gaacaaattt actatacatt 60  
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 tgctaacaaa cagcttctat cacccttcaa attgtctcaa tctagcatga gaaatccaat 180  
 aactaagctt tctcataaac agtttggtgt aactcccatt cattcaacca gagactacca 240

actcaaccat ttcttgtatc ctggagtcaa agattcctat tgatggatga aatatctcgg 300  
ccaacttgta acgaaattgg ttgtctctta tgcgagacag aaggaggggt ac 352

<210> 5025  
<211> 593  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220069g11a1

<400> 5025

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gacaacttca agggcacccg gtgggccgctc ctctcgccg gttccaatgg ttactggaat 180  
tacagacatc aggctgatgt ttgtcacgcc tatcaaatac tgaggaaagg tggctctgaaa 240  
gaagaaaata ttattgtttt tatgtatgat gacattgcat tcaatgggga aaaccaagg 300  
cctggagtca tcattaacaa accagatgga ggtgatgttt ataaaggagt tccaaaggat 360  
tacaccggcg aagatgttac tggtgataac ttttttgctg ctttacttgg aaataagtca 420  
gcactgactg gtggcagtgg gaaggttgtg gacagtggctc ctgatgatca tatatttgta 480  
tactatactg accatggagg tcctgggggtg ctggggatgc ctgctgggtcc ttacttatac 540  
gcggatgatc tgattgaagt ctgaagaana gcatngctct ggacatataa aac 593

<210> 5026  
<211> 420  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069g11d1

<400> 5026

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aaccgatct gccagttgcc cactgaataa aaacacacat catattacta tgtgttgta 120  
tacatgcatt gtaatgagtg gatattccaa agcaattggc ccctttatcc ctcttaatc 180  
cttatgccgt aaatggcacc atcccttgta aattgtaatt gcttcttcag aaatagaatt 240

atacaaaggt agttgcaata tctatTTTgcc aaactataaa tgtaaagacc cttcttccca 300  
atcctagtag tgteccaatt gtattttacaa aggtgggaca agatatgtat atacaagtac 360  
aaccatgtaa cataatggaa caataatcat actttggtct ttactagggc acattacagg 420

<210> 5027  
<211> 586  
<212> DNA  
<213> Glycine max  
  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220069g12a1  
  
<400> 5027

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cagcatcaaa gttcattcca caccaaTCg gaggggtcca aaacgacgcg cttcgattcg 120  
gtctccatgg gagtcaagag cgacatcgTT ggttctcacc ctcttcaatc ttcactccaa 180  
tctacaagga gaatggatga agcgatgaag aggcaatgca aagttaacct gtacggaact 240  
gcttttccca tgaaggagga gcttgacagg caaatcctgt ccaggttcca ggggcctcct 300  
ggaccaattc cttcttcaat gctgggTTtg gagactgtta caggaagtgt tgatcacttt 360  
ggttctgagg attgtctaaa tgacccccgt gagtcagaga ctttccggcc attagacatg 420  
catcatggga tggaagtTCg ccttggtcta tctaagggaac cagtgtaccc aagtattata 480  
taattaaatt tgactgttat tctagtacca gaaaacagta ttttTgtatc gaagcttctg 540  
gtattcatta aaatggaagt gtncgaggga ttctcatatg tagtcg 586

<210> 5028  
<211> 443  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220069g12d1  
  
<400> 5028

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tttttttttt tttttttttt tttttttttt tttttttttt tttgaggggg agcgggggga 120  
ccccaaaaa aaagaagggg tgtttaaaaa aaaccggggc cccctttcc gggggaagcc 180  
ccccaaaacc ccgggatttt ccccccccc cccgggcaaa aaaaaaaaa cccccccaa 240

accatatttta aaaaggggaa acggggggga aaaaaatttt accccaaggg ggggggggcc 300  
caaaaaaaag gccccaggca aaaaattggg ttaaaaaaaa aaaaaacccc cttttttttg 360  
ggccccaaaa ttttttcgcc cccaaggag gggaaaaccc cccccccac ccccagggg 420  
gaaaaccccg cccccccct ttt 443

<210> 5029  
<211> 509  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069h01d1

<400> 5029

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taataagaat tgagaacaat atatacacia aaatatcaga atcaatttgt taaaaaattt 120  
agcttctaca ggctgagttt agacgaaaaa agtaaatgaa gaaagaaatg aaatcttggt 180  
gggttatcga tgggcaatgg attattttct caaattcatt attgtagcta gatgtctagg 240  
attgcttcaa ttccaacccc agctgatcat cttcttagt ctttttctct ctctatagcc 300  
ctcctgtaga gttatcaatt tgagattgat cagtttcaca aacttgtcaa tcttcgtcat 360  
cagagctggc atcatcacta ctataatcac tagtatcact ttctccaagg tccaattaac 420  
tggtgcact tgaataactt ctggttgctt gggctgagga atgtgaggtt gtatttggtg 480  
ctctgcaaat ctcggtattt tgagcgagt 509

<210> 5030  
<211> 330  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069h02d1

<400> 5030

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ccttttagga actagtattg attaataaaa ataaataagg aatgaacaaa attcaattta 120  
ctttttaaat acatgacttt tcccaccacc atttggggat actgtataaa tattatagcc 180  
atacagctgc agctttcagg gaaagaaaaa ctgaaatttt gttggtataa aagcccggt 240

gtatggagtt gttagggctt tgaagcatgg ccagtgtggt gaccctgaa agcacaagaa 300  
gagttttgca accaccattt tgtccaaaca 330

<210> 5031  
<211> 239  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069h03d1

<400> 5031

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ttcttgcctc cttgaaccac ctcttgtctc cagcttgagc cttgcaaagc aacagttttc 180  
catcttttac agttgctcta attatgtggt gcttgccacc tttatctcca tcagcagtc 239

<210> 5032  
<211> 483  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220069h04d1

<400> 5032

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tataagcagc aactgaattc agcatggctt aaatgacgaa ttctttaaat gcatttgcatt 180  
ttaatttaca atacattcat cagcaatcac aaacaactat ttaattggca tatatacatt 240  
agatgcttgg gaaacctata ctactcataa actcaacaat tgtaatgcca aatcaattga 300  
gaaagagaac tatcaagcca gaaccatcac aatattgcag gagaaaaaaa caatgttcgt 360  
gaaggtcatt tttgtatat ttaagacaat gacgttacag ctagacggga ctagcacagc 420  
atcagaaatg aacgtacatg acctgatgtt agatatattt ttaagccatg ctgtacttga 480  
tcc 483

<210> 5033  
<211> 587



<212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220069h05a1  
  
 <400> 5033  
  
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 tatggtgccc gtactccgga ggtgaaatgc gcaagttgga ggcttgctgt ggaagcacac 180  
 aacatctttg gctttgagac cattcctgaa gagtgcgttg aagcaacaaa ggaatacatc 240  
 catggcgaac aatatagatc agactccaaa acagttaacc aacaagctta cttttatgcc 300  
 agagacctcg aagttcatcc caaggacaca tttgcgtca gtatagatgg caccgtactc 360  
 tctaatatcc cactactaaa aaaacatgga tatgggggtg agaaattcaa ctcgaccttg 420  
 catgatgaat gggtaacaaa gggcaatgca ccggcactga ccgagactct taagaattac 480  
 aacacgctgg tgtctgatgg cttcaagatt atattctcgt caagatgaac actgggtcaaa 540  
 caggccgtag cagaagcaaa cttaacgaat gctgggtacc acacatg 587

<210> 5034  
 <211> 393  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220069h05d1  
  
 <400> 5034  
  
 atggtcaatg ggtccaaaat cttgggaaag aaggcaaaaa aaaaaaaaat actgaaaaca 60  
 tttaataacc gtcctgtctt cccgagcaac cggaaaggaa gaaggggtgag ggacaagggg 120  
 agccccgatc aatgataatt aaaaattgac ccaatagcaa gatttggggg agggggccgc 180  
 ccccttcgga cacggcgagg ggtattataa aagcctacgg ctgaagatcc ccctgcgtgc 240  
 cccaaccaa attggccaat atagttttcc cccacacag cagtgggggg cccccattc 300  
 ccatttgag tgtggcacc cggacatgg aaaccgctt gggaatgaag aaaaaccag 360  
 cccccaaaa cacattattt tggggggaga acc 393

<210> 5035  
 <211> 468

<212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmfl02220069h06a1  
  
 <400> 5035  
  
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 tgaagaaatt caagagcaga tcgagactaa ctcaccggtt tccgacgttt cagggtttca 120  
 gcacttacat tgtttgattt tccagatttg agttggaaga agatcaacga ggctcctagt 180  
 tgcttggtt gttcctctgg gtggtggaga ctttgctgat agttaagata ttgacaattc 240  
 aaaatgcgca tggagagaag ggataggact ttgtcacatg aaagctgcag aggctcacct 300  
 taccgtagca gctctagtcg cgtgggaaga tcttctctta ctgagtcaga ggagaatgtc 360  
 taggaatggc tagaagctat gcgtccagtg tgcattggatc accctcacag tgcaggtgtt 420  
 cttatatgtt catccgacga gatgggatgc cgtccttaca tgtgcaac 468

<210> 5036  
 <211> 397  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmfl02220069h06d1  
  
 <400> 5036  
  
 tttttttttt tttttttttt tttttttggg aagaattttt tttatgccc acaacaaatt 60  
 ttatttacag ctcaatcggt caaaaacctt gggaaagagg gcaaaaatat taaatatact 120  
 tataacattt aataaccgac atgtattcac gagcccctgg aaacgggttaa tgctgaggaa 180  
 aaaggccaac catgatcaat gataactcaa atttgaccca tttgtatgta atgggggagg 240  
 ggtccgcccc ctccggacac aggaaggttt attcccgagg cctcctgtcg aaaattcggg 300  
 ggcttcaaaa aaaccaaattc gggaatcaaa attttcccc caaaaagttg tagggggccc 360  
 ccttatacga ctttgagggg aagtccccct ggcctgg 397

<210> 5037  
 <211> 573  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations

<223> Clone ID: jC-gmf102220069h07a1

<400> 5037

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cctcgaggtc gaaagcagcg acaccattga caatgtcaag gctaagattc aagacaagga 120  
aggcaatccc tccggatcag cagcgtttga ttttcgccgg aaagcaactt gaagatggaa 180  
ggaccttggc cgattacaac atccagaagg aatcaaccct tcaccttgtc ctgaggcttc 240  
gtggtggcat catcgagcct tccctcatgg ctttggctcg caaatacaac caggacaaga 300  
tgatttgccg caaatgctat gctcgtctgc accctacggc tgtgaactgc cgtaagaaga 360  
agtgcggta tagtaaccag ctgaagccta agaagaagat caagtaaatt ctgggtggga 420  
tattgttggc ctctactttc gttntgtttg tcttagaaca gtgacttggt tggcatttat 480  
cgtatctggc tctgattaat ggtaacttgt ttgagacaat aggtttgaac tagtcattat 540  
atcttgatga tgccatttag tcctagtcag aac 573

<210> 5038

<211> 421

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069h07d1

<400> 5038

gactaagacc aaaatggcat cataaaaata taattgacta gttcaaaact attgtctcaa 60  
aacaattaac attaatacaa accagaaacg ataaatacca aacaagtcac tgttctaaga 120  
caaacaaaac gaaagtagag accaacaata tcccaccag aatttacttg atcttcttct 180  
taggcctcaa ctggttacta tgaccgcact tcttcttacg gcagttcaca gccctagggt 240  
gcagacgagc atagcatttg cggcaaatca tcttgtctcg gttgtatttg cgagccaaag 300  
ccatgaggga aggctcgatg atgccaccac gaagcctgag gacaaggtga agggttgatt 360  
ccttctggat gttgtaatcg gccaaaggcc ttccattttc aagttgcttt ccggcgaaaa 420  
t 421

<210> 5039

<211> 579

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069h08a1

<400> 5039

gatttttctg gaatgtacaa ggttgggttt ggactccaaa gtaacaatac aacaactaat 60  
gctgtgcttt gttctgtgcc taatttcact aatcaatcag ttagcaatca catgaatcta 120  
gaaggctctg gtcagaaaag tctttccatt gatttaaagc aagtgtggga tgcctttgcg 180  
tcaactgac aaaggataga tgatgatttg cttcaggccg cccttaagat tccatctctt 240  
catctggagg agcatgtgcc tatgggtgat cacatctctg gttttgttca agattgcctc 300  
agtaaagatc ttactagtca acatatgatg aaaatgaatg ttaagcatgc agaagccgat 360  
gctcaacttc catcaggtga tgacctcttc gatgttttgg gcgtggattt gaaaaggaga 420  
ctactcaatg gaaaccggaa tgagttgctc gccactgatt cagatgccat cacagaacat 480  
ctagataaaa aggcaacaca catgaatttg caaggtgtag gtcctaaata tagttattca 540  
gttaatgaag ctatatcaga aagtggcatc ttctctgga 579

<210> 5040

<211> 504

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069h08d1

<400> 5040

gacacttatt ctaaaaggta gtattaatct agtacatcat tcagcataga ctaacacaaa 60  
ccacgcaaag cttacattaa taaaattggt atattataac agccaatatc accactccaa 120  
gaaacgtgga gaaaaaaggc cataaagctt gatgggtcaaa cacatgacct ccccccttag 180  
caaaccttac aatatctata catctgaatc acaccatgaa caccaatggc attactcagc 240  
aacatcaaca aaagccttat ccaacttggc gaccaatggc attactcagg gaaaaaaaaa 300  
atggatgcaa gttatctaaa gaatgcctaa agcatcagca gacactgcca aatgggccaa 360  
ccacaggata agtcaccttg gcaggaaagc gaagaaacat gcatatacat tatacaaaaag 420  
catattaatc ttgagaagtt cttactaact aaactcatcc ccctccaaac tgagatgaaa 480  
cagtagttag acaaagtaaa ttca 504

<210> 5041  
 <211> 514  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220069h09a1  
  
 <400> 5041  
  
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 aaaaacacca cgcaaacagc aagatggcca cttacgacag taacatgcta ctaaattatg 120  
 ttccagttta tgtgatgcta ccactcggag ttgtcaatgt tgacaatggt cttgaagacc 180  
 cagatggcct taaagaacag ctcttgcagc ttcaagctgc ggggtgttgac tgtgttatgg 240  
 ttgatgtgcg gtgggggatc atagaactga aggggcctaa gcagtatgat tggagagcct 300  
 acatgagttc tgttcagctg gttcaagagt gtggctcgac actgcaagct attctgccat 360  
 tgcattctat cggtgggaac gtcagagata tagctaacat gccaatcca cagtgggcgc 420  
 ttgacattgg agaatcagat catgatattt tatacaccaa ccgctcaaga acccggaaca 480  
 tggaatatct aactgacggt gtagacaatg agcc 514

<210> 5042  
 <211> 450  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220069h09d1  
  
 <400> 5042  
  
 gataaaatag tttattaact tcgtgatcgg aatacacaca taacaagtac acgagagtac 60  
 tttggagatg tttaggcagt gctacttcat ggcattatta tcagcattgc acattacaga 120  
 ggctggatgc tttatttata ttggcagata ttatttccag cagattattt aattactcat 180  
 ggcaccaa at tgggaaatca accatcaact ttcatgtctg tctctggaag ccaggggaat 240  
 ggcagcggtg gtttagttgc ttccagaaga acctcaatgg gaatctttgg tgcagatggc 300  
 ttcaatggtg ctatggcgtg agtatacttt tgcgggtctg cacagggatc ctgagctgca 360  
 tgcattctata gcacagattt ttagaatata ttaaaattgg atttttgcag tagatcatct 420  
 gatagacgaa ggtatgttac tccgaacatg 450

<210> 5043  
 <211> 483  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069h10a1

<400> 5043

cgactgtgcc cattgatctg gacagcgctt gctttccgga tatgtagaag aacgacgtgg 60  
 cactcaacac caaccacatc cccgtcctga ccaacctgaa caacatcaca aggctgagtg 120  
 gacccgactt ttcgctcgaa ccttacttca tcgcgaaact ccatagcgat ctggatctcc 180  
 cagacatcag ccattcgcta ctttatcttt gtgactgtta gactatctac tgcttaccga 240  
 tgctgtgatc accgtttgat cggttatgag cgaaaccttg gacaaggctc acaaactgtg 300  
 aatgatgcag gcgcatacaga ggatgcatcg gaccatacca tactcttgct gaatacgaca 360  
 gatgatgcta aaactgtcta cgtctgaagg ctagccgcat atgatgctgc gcatgcatga 420  
 tatggggaac tgacgattaa gagtgactag tcaatcagac gtcctcgcac atattgtact 480  
 gat 483

<210> 5044  
 <211> 296  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220069h10d1

<400> 5044

ataaaaagctg cttatttgtc gcctattcca aactgcgggc gaacaaattc actatacatc 60  
 tcttgctatt gacctagcac ggtacaaacc aatttacata aattttactg ccctgagcca 120  
 aggtggcaac catctgctgt caccctgat ataccaacaa tctaacctga taaacacaat 180  
 taccaatctt attgaacaac cgttgggtgt ctgtccctt ggttccacca cccactacaa 240  
 gtgcgccatg gtatgtgatc ctggaactta aattccaatt ggtggcacc acattc 296

<210> 5045  
 <211> 411  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220069h11d1

<400> 5045

aaaagttaaa actacttttag accgcaaaat tcaaaatcca gaagtggcta gtttttttgggt 60  
tcaccaaaaag cctcgtacaa aatcttaaca aatgaaaaca agtgggtact cgccacaatg 120  
ataaggcaaa tgtaacaaaa aaaaaaaaaa ccagtaatat atgatatgtg aaaaacaggt 180  
aaccgatcct aataaatgct ttttaattgaa gtttgcattcc aatgtagata tgaagaggta 240  
tatcgagacc tcttttgcac catccaaaaa attttgccat aaacagcaga agaattcctt 300  
gtaatggggg tgatcatttc acagtcaaga tcttgatgat agatgcagtg cccacacgat 360  
gcagtgccac cactgaatcc ccgttgtggc agagaccctt ggacttggca t 411

<210> 5046

<211> 541

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220069h12a1

<400> 5046

gagcacactc gtgaatcgtg atttagcatt taccacacca aaatcaatct gcggagtcag 60  
aaagccatgg atccctacaa gaatcggcca tcaagcgctt tcaattctcc cttctggact 120  
acaaattccg gtgcctccca tctggaacaa taactcatcg ctgactgttg gatctagagg 180  
tccaattctg ctggaggatt accatctggt ggagaagctt gcaaactttg acaggggaacg 240  
gatccccgaa cgtgttggtc acgctcgtgg agctagcgca aagggtttct ttgaagtcac 300  
gcatgacatt tctcacctca catgtgccga tttccttcga gcccctggag ttcagacccc 360  
cctcatcgtc cgttttctcca ctgttatcca cgagcgtggc agccccgaaa ccctcagggg 420  
tcccagagggt tttgctgtca aattctacac cagagagggt aacttcgacc ttgtgggaaa 480  
caacttccct gtctttcttcg tccgcgatgg cctcaagtnl cctgacatgg gtcatgccct 540  
c 541

<210> 5047

<211> 523

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220069h12d1

<400> 5047

aagcccaagt aaacagagaa tcatggaact gtccagatcc tcataccttat cacaatggac 60  
atatagtatt aagtggacaa gtcaagaagt tgagttcatg aaataagcaa tataacaatat 120  
agcaatactg taataaaagg accagtcctt tcaaattaat actgtgccac aaactttctca 180  
cttgttccta catctgcac tcttaaaagc tagggtttcc accaccaatc ttagatactt 240  
ggcttcaagt tcaggtgaga tgctatcttt tgtccaagag aacgatcagc ctgagaccag 300  
tatgatatcc agatgctacg gatttcatgg gtgacacgtg ggtcagacaa agcatcaacc 360  
catcggcgga caaacctttc ttgcctgtca gaaggccaag atcggtatct ctccccaggt 420  
tgcttgaagt tgttctcctt ctcaatcatg cacttttcac gcttcccacc taggatacga 480  
ggaggaacgg ggaccttttc cgcattgacgg acaggatcat acc 523

<210> 5048

<211> 533

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220070a01a1

<400> 5048

gtggattgtg ctctacactc cccccagtg atccatttcc caaaccagcc ctacaacaaa 60  
cctgaaatta ccaaagaacc caccacctcc accgcggaaa ggcttcagtg gaaccattc 120  
caaaaagccg cagcaaaggc cctcgacatg ttcgagagcg cgttgctctc acgcgagctc 180  
aaccaaccct ttcccaaaac cactgaccca cgcgtccaaa ttgccggtaa cttcgcccc 240  
gttccggaac acccgtcga acattctctc cccgttattg gcacaatccc cgacgccatt 300  
aacggcgtct acctccgtaa cggcgccaac ccattgttca agccaaaagc gggccaccac 360  
ctcttcgacg gcgacggaat ggtccacgcc gttaaattca atgacggcac cgtcagctac 420  
gcgtgccgct tcaccgaaac gcagcgtctc atgcaggagc gcaaattggg aaaacctgtg 480  
tttccaagg caatcggcga actccacggg cattccgcat cgcgagggtg atg 533

<210> 5049

<211> 484



<212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220070a01d1  
  
 <400> 5049  
  
 agccaaacag aaagcgaatt ctttttttaa acaaaagaaa ggaagcaaga aacagaaagc 60  
 agctgagctt catccacaaa ctacaagctg attcgcgaaa gcatagataa atatttatta 120  
 ttgagaaggg tagaaaaggc aacaaaatgt ttgttgctctg aaatgtgttt taccgtttta 180  
 gcgaccaa ataaaatagtc aggtggactt caatgagcct ccacaaacgt gccatggaag 240  
 ccatagggca ctcttgaagg cagcatgaca gtggcctcca acttcaaatac aagtgcattc 300  
 agaattctgca actcggactg ccacgtcatc tcgtcatgca caaaagccat cacgtaccct 360  
 tcattctcat tccattccc tccacgtgtt ggcaagaaga atggctctcc accgaacctt 420  
 ctctctccgt actcgtgcct cttcacttcc cactctcca ggtccacctt cgccaccccc 480  
 gaca 484

<210> 5050  
 <211> 136  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220070a02a1  
  
 <400> 5050  
  
 gaacgacgag cgacttatac agatctttga cgagattggt agcgattca taggacaaat 60  
 tgatctgttt cttcaccctt atctccaatt cccaaaccct aaaccctctg tactctaacc 120  
 ctaaccatct ctccta 136

<210> 5051  
 <211> 243  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220070a02d1  
  
 <400> 5051  
  
 cctatatatt ttcatatata taggagaacg tggtaaaatt ttataacctt catgccctaa 60  
 atcccgaac acaacaacc cccacattt tttcattaaa aaaaccact tacattttta 120

aaaaaaacaa caaattaggg gtcccaaaca aaaatacccc ccggttaaata aaacccattt 180  
aataccccaa atttacttga gcaccaaacc acaagggttc ccccatgtt aatcgtcctt 240  
agg 243

<210> 5052  
<211> 491  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220070a03a1

<400> 5052

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gatttaagac aagtgggtggc ggggtgtctc accctcaciaa tggtcgatcat gcttatacac 120  
atgatcaaaa gagaccattt tgatgctgtt gatgataaac ttcttggaac ggaggatgtc 180  
agctttgaaa gtacaaactt tgatactact catgttagaa agaacatcgg gatttggaag 240  
ggagatgggtg atgagttaaa accatgttgg cttaagccat ctgaagataa cgtggatcag 300  
actgaggggt ttgttacctt ttctttaacc aatggcccg agtaccatat atctcagata 360  
gcagatgcag tgcttggtgc tcgtagtctt ggggcgacac ttgtcatccc tgacattaga 420  
ggaagccaac ctggtgacaa gaggaacttt gaggacattt acgatgtcga tgtgttcatt 480  
aaaagcatgg a 491

<210> 5053  
<211> 297  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220070a03d1

<400> 5053

aaccgggaa aaggaaaaaa aaacccttg gttctctttt tttttttggg gccccgggc 60  
ctgttttttt gctttttgaa accaaaaaaa aaacgtcccc cgaaacaatg aaggggctat 120  
caattgtttc ccccgctttg aaaaataaat ttggggggcc ccttttttta acaaactaaa 180  
tttccgttca aaaagccctg ggtccctgtc aaatcacagg aacttgaatt ttttggggaa 240  
ccccaaaaca agaggccttt ggccctaaca ctgaaattcc cgaagggggc cttttt 297

<210> 5054  
<211> 523  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220070a04d1

<400> 5054

aaactaacta atcttatatt atgtagaagg ttttagtatt acacttgat acatgaccaa 60  
tgcacataac acgtatgcta ttgggctact ctagtttaga gaaaatttga cacaagcagc 120  
agaaaccagt aggcagaatg caatagagaa atattacatc atcaaccggg ctttaaagct 180  
tttgtgtaca aaacccaaaa tcaagcactg tagcctctgt ttgatggatg caatagccca 240  
gcattgtagc cttcacaggc tgccaaacaa gcctcttcca tggaggcctc agaaacgcca 300  
ctgttgcaaa tggtggcgaa tgctcgcatg tgtttcatgc catactgagt cagtgtccca 360  
cagtgagttt caaacacccg aaccattgat tttaggcatg tccagtcac aacaagggac 420  
gaaccaggag ccctcacgga ttgtagaaca gaagaacctt ttcttggtcc atacagtaaa 480  
actccaatca attccacgct accatctatg tgttttctat gct 523

<210> 5055  
<211> 569  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220070a05a1

<400> 5055

ctctcttctc tctgcatcgc ttcaggttct tctgaaaaga tgtctcgct gtatgttggt 60  
aacttgatt cactgagtcac cgagagagat ctggaagacg aattccgtgt tttcggagtt 120  
attcggagtg tttgggttgc acgtagacca cctgggttatg cttttattga ctttgatgac 180  
cgcagagatg cacaggatgc tatccgtgaa ttggatggta tgtttagaag aattatgttg 240  
ttggaatgta atagaattaa aatcaaaatt aaaatgtgca tatatatgta tatttgctac 300  
attcttctta tctgctaatt tgttattgtt tttcccccac gttttttccg gttgatatgt 360  
tgaagggttt tcctcaacta gctagttaag tcttcttttt ggcctatggg gcaagcagat 420  
gctgctctct ctttcttcta cttctgcctt gggctgcagt aatggttttt tcttcggttg 480

gtcttcgtca aagtctgctg cttgtacagt ttgactactt ctactactac tgcattgttaa 540  
gaggattaag aatgggacac cggggattt 569

<210> 5056  
<211> 506  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220070a05d1

<400> 5056

attctgcaaa gatctggaac tctatttaac atactagtag caacaacctt aacaagatca 60  
ttacctgcaa tgaaactaca agtattctgc aaataaatta aacacaagct tggacataga 120  
gaaactaacg aatacaatcc aagagtagaa actcagggcc ttgcccaca aaatagactc 180  
atacttcagt ctaagcacca ctatagatta acaaaatctc actattctct taacaatcac 240  
agataccaag tgtcaaaatc aacttctgct tctgcgtcgt tccctaaggc catttccatt 300  
agcatatggg acctcctcac gccacgata aggaggtgac ctgctgtagc tacgtccacg 360  
aggtgacaaa ctacggcgcc taggggaccg cccacgagga ctgtaactcc ttcgcccata 420  
acttgggctc ctacggaatc tgggtggact acggctacgg cgtctttctg aaccaccacg 480  
catgcgacat ttacgagcaa aatgac 506

<210> 5057  
<211> 475  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220070a06a1

<400> 5057

gttttgctat ggagattcta gaagcagaga acgttctggt ctttccctct gagcaaccca 60  
acaacaatag gccaaagcca aaaccaaagc gtttcgtgaa aaaccaaatc ccagactcaa 120  
tccttaacaa ccttcttctg agcgccgcaa tctctgtgct ccttccaac tacaacttcg 180  
aggccacaaa gtgcgtctgg cgcgtgctct ccacgggagc aaaacgcgtg gctctccagt 240  
tcccggaggg tctcctcatg tactctctcc cactctccga catcttcacc accttcgccg 300  
gcgtcaccca ctgcttcgtc ctgcccagc tcacctacgg cgcttgctgc gtcgacgacc 360

ttgctgcctc cgccctcggc gccgacctcc tcatccacta cggccacagc tgcctcgttc 420  
ccatcgacgc caccacaatg ccctgcctct acgtcttcgt cgacataaaa tcgac 475

<210> 5058  
<211> 466  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220070a06d1  
  
<400> 5058

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ttatggggaa ccaatctaaa ggccaaatta gcggggggga caciaagcta tgagaaggct 120  
taggggtttt aaacaattga tagagggttt aaggacaact gggaatgtta actcaaaaaa 180  
tcatttttcc tttatgtcca ttaccagaac aattgtaaat gccatgttat ataactgcca 240  
tcattgttcc tttcccatcc tcacgcttta aaactgcaac cttgccactg ccaccgaagt 300  
acatatatac tttctggata acccatatgc tcatcactga ctttaaacia aaaaggccta 360  
atccaatgaa gtataatatc ccaaccaatg cattgttttc caacacatta atcgcatcca 420  
aaatgcctgt gagagatttt ccttttaaga taattggtgg aacaac 466

<210> 5059  
<211> 418  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220070a07a1  
  
<400> 5059

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aggaggatgt acaacctgtt cgtgaagcac ttggacggga aaaccctaac ctcctattc 120  
ccctctccga tcctctacgc gagtttcatc aaggatcgcc tctttcaact cactggaatc 180  
cccgcccacc accagcgctt cgtcaccggc tgctgccacc tcaacgatga caaatcgct 240  
atccagtgt ccccggggga cggcaacatg tttccctccg tgcgcctcct cctgcgcctc 300  
aagggcggca agggaggctt tggctcgctt ctccgtggcg ccgccaccaa ggccggcctg 360  
aagaagacca acaatttcga cgcgtgccgc gacatgagtg gccggaggct gaggcacg 418

<210> 5060  
 <211> 385  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220070a07d1  
  
 <400> 5060  
  
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 tttttgtccc aggggggggg ggattttttt tttaggaggg gggggtttgg gcgggggggg 120  
 gttttaaaagg gggggccccc cccattccca aaaaaaaaag ggaaaaatcc cggggggggg 180  
 gggcccgggg gggggccccc gggaccccc cccgaaaaac cccgggggga aaaaaagggg 240  
 gggggccaat ttggggccaa agggaaaacg ggcccgtta aaaaatcccc ccacattttt 300  
 ggggggcccc aaagggggcc ccccccttcc cgcagggggg cccccaaaac tccgaacctt 360  
 tggggggggc ctaaaacccc ccccc 385

<210> 5061  
 <211> 212  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220070a08a1  
  
 <400> 5061  
  
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 aagtaggagt gtaagtcctt atacaaggaa atcacctgtt tctccaaat gtcatagaga 120  
 aacttcacct catagaggaa ggaaacagtc acgtgttgat tctggctctc caagtcacg 180  
 cagaggaagt aggccttctc caaagattga tg 212

<210> 5062  
 <211> 549  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220070a08d1  
  
 <400> 5062  
  
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tcttaatgtc aagttcagcc aaatccaagt tagtcaactg catatgtgct tgggcccttc	120
tatagagggc tttcacatth gtactctcaa ggtccaacac cttagtacac aattttctctg	180
cttcttttga gtcttttaac ttcaacttgc aagcagcatt gttcagattg caggcaacct	240
tcaaggtctt ggcctgcttt ttctctctct caccaaagga ggaatcatat tctatgtact	300
tcacggcctt ttcatatctt ttggaagctc ttgcatatth actagcttta aacaagacat	360
ttccctcttc tttctttctta ccagcagctt caagtttctc ttcagtgttc agatcccagg	420
actccttctc tttctcaaath gacactagct caacttcaaa atacacggct gagttaggag	480
gaactacagc caactcctgt tgggactctg atgtaccgaa agcataatca ggtgcaatgg	540
taacaacgc	549

<210> 5063  
 <211> 533  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmfl02220070a10a1  
  
 <400> 5063

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actaggacta ggaaaggacc cggcattcct gaaatggtat agagaagctg aactcattca	120
tgggaggtgg gcaatggctg cagttgtagg catcttcatt gggcaggcat ggagtggagt	180
tccatggtht gaggctggag cagatcctaa tgcaattgct cttttctcat ttggctctct	240
cttaggtacc cagttgctcc taatgggggtg ggttgagagc aagagatggg tggacttctt	300
caaccagat tctcagtcag tggagtgggc cactccatgg tcaaaaactg ctgagaactt	360
tggcaactct actggtgaac aaggctaccc tggaggaaaa ttctttgacc ctttgggatt	420
tgctggagct atcaaggatg gccgttacat tccggatgcc gacaagctag agagactgaa	480
aatggctgag attaagcatg ctaggattgc tattgtggct atgctgattt tct	533

<210> 5064  
 <211> 545  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmfl02220070a12a1

<400> 5064

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ttcccagaaa gtttgaacca acacaaaacg aggttgctca ggagaggctt tggctcatgc 120  
ccttcacctg ggggtgcttg ttttgccat aaaaattatg atcagttctc tgtgaaagtg 180  
tgcagggtt ttaggactga ggatgggtgg gatgtgaagg agaaaaagt tcgaaatttg 240  
aagaaaaatg aagagaaaac caaaaggga agtgggtttt ggagttccct caagtctatc 300  
ttgctgagga atttcatggt gggttcaaaa tcagatgatg agtatcgcca agctgtggtc 360  
aaggtggagg gtctcctatc ctgattgcc attcaaattg gaaggtatat tgtgactatg 420  
atgagcactg gggtcactct ttcaattgga tttcagatgt cagggtggaga cagtcagatg 480  
gatgcattaa tatggtatag ttggctagga ggagtaatca ttgggacaat gataggtgct 540  
aacat 545

<210> 5065

<211> 476

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220070b01a1

<400> 5065

caggctgcgc agtgtttgaa cggtgaagga gagcgtagag gcagtggttt tctttttttg 60  
atttctcttt gtagaatcga atcgagttaa tttttgatcg tgtgagtgtc cgatcttgaa 120  
atccacaaca acaatggtga gaggattgct caacaagctc gtctctcgct ccctctcggt 180  
cgccggaaaa tggcagcaca atcaactccg ccgcctcaac atccacgagt accagggtgc 240  
tgaattgatg agcaaacacg gagtcaacgt tccgagaggc gtggctgttt cctctgttga 300  
agaggccaga aaggtcatca aggacctttt ccctaataa aatgagttgg tgggtaagag 360  
tcaaatttta gccggcggac gaggtttggg aactttcaaa agcggcctta agggatgagt 420  
gcacattggt aagactgacc aggttgaaga catagctggg aagatgcttg gacaga 476

<210> 5066

<211> 480

<212> DNA

<213> Glycine max



<223> Clone ID: jC-gmf102220070b01d1

<400> 5066

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attgagaagg gaaaaaaaga aacaaaatgt ttggtgtctg aaaagagaaa aaccggggaa 180  
acaaccaagg gggggggggc cgcggaactt aaggggggaa aaaaaaccaa ccccgcccg 240  
catagggcac ccctgaaggc ccccgacgg gggcctccaa cttcaaaaca agcgcccca 300  
gaaacagaaa aaaggactgc cagcacaacc cccctgcgg ggaggggggg gcgccccca 360  
aaaactgatt ccccccccc tctgtagaag gggggagaaa ggccccctcc cgaagcggcg 420  
ctttcgggcg gggggcgggg gaaaaaaaa aatacagggg caataaggcc ccccccccc 480

<210> 5067

<211> 434

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220070b02a1

<400> 5067

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gttgatgtct atattctatt attatcatca tggtttctcg tatctgctgt gtgtgtttgg 120  
ggacgaccgg ccacttttct gcaagacttt gaaatcacgt ggtcaaagac tcatatcagg 180  
caaattgatc aaggcagatc catccaactc attctagatc aaaactctgg ttgtggcttt 240  
gcttccaaga gtaagtacat gtttggccgt gttagcatga agatcaagct cataccgga 300  
gactctgctg gcactgtcac tgcattttat atgaactctg acaccgacac tgtacgtgat 360  
gagctggatt ctgagttctt ggggaaccgt aatggtcagc cttacacagt tcagacaaac 420  
atztatgctc acgg 434

<210> 5068

<211> 516

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220070b02d1

<400> 5068

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acaaacaatg agatttgcta catcacaagc caaaaaatat ccttcatgaa tcatcacaaa 120  
ttcacataa tgcgcaagct ttattgcacc acaacaatg cgcactttaa tacaaaggca 180  
tagtagaccc agaaatagct tttgacttat cctcttctgg tcgaacatag cccacgcctt 240  
acatacacta taatcatttg ccctcttccc caaaacaaaa caaaaaaaat gttaatttca 300  
attgatccat gtggtatggt atggggacac aataatttac ccctagtctt aagttattga 360  
tgtgcatttt atttcacgtg tttatatgaa agacatgaaa taattgaaga ggcgtacccc 420  
atgggataaa ctgaaataac tcagttgtag tatatatagt atgatgtatt tgaacagtgg 480  
agaatgtaaa ttatatatag ggggtatgata tgcctg 516

<210> 5069

<211> 435

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220070b03a1

<400> 5069

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gggtgcaattg attcaatttc atttctattht tatttttttg tattatcctc tttgatcata 120  
cacttggttc acaaatatgg tgggggtgat ggtgctattht tgtttcacct ggtacttccc 180  
tgaatctggt gcataaggga tttcaaccag ctgaggttht acgaacgggt ctattccacc 240  
attggcagtg ttaatttgaa aatcataggt tgaattgtat gaggcacaa gtaatatatg 300  
tgatctcgga cccaagtaat ccatttccaa aagatgagta agggaactag tccttgga 360  
tttcaccaat tcttggtcac tgggtattgt tgcgtggtga aggttgtatt gggctattgg 420  
gtagtcctcc ttttg 435

<210> 5070

<211> 366

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220070b03d1

<400> 5070

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ccaatttggc tctccctatt ttttcaccca atagtaaagt taccgttttg tttgggcttt 120  
tcctaaaaaa ggggggggggt gggcattaca taaacaatta tttaaactgg attcactcgt 180  
acatacatgc tcacaaaaca aataggggga gatttttttt caaatggaaa atggcatggg 240  
aaaaataata tcttgggggg catgaggggtc tcatgagaga ggggaacca tttttttgca 300  
gccaaccttg ggaggggtcta atttgctggg ggaatcctga tgatgctgca acagttgcta 360  
acaaat 366

<210> 5071

<211> 368

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220070b04a1

<400> 5071

aaaaaagaca acccagagag cgcgttttaa taaacgctct tctctgaaaa cccccatttg 60  
gggtggttct ttcttcttct ctttcgcttc ttcgatcttc gatcttcgtc gctgaaaatg 120  
agagagcgca tttcaatcca catcgccag gccgggattc aggttggaag cgctgctgg 180  
gagctttact gcctcgaaca cggcattcag cctgatgggc agatgccaag tgacatgacc 240  
gccggtggag gtgatgatgc tctcaacacc ttcttcagt aaactggggc aggaaagcac 300  
gtgccccgcg cgatttggtg tgatctctga gccactgcg attgatgagg tttggactgg 360  
gacatacc 368

<210> 5072

<211> 345

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220070b04d1

<400> 5072

cgaacccaaa gtttaataca tttaggggtc tgggtttcac caagcaactt caaataaatg 60  
ttttcaccac acttcacata aagctccaaa agtaccggaa caaggcaagt tccacggaaa 120

gtacaacgat ccacagagca cgagaagaaa aacaacacag aaagttacat aatagtgcaa 180  
 acttctaatac ataataccttt ccttaatacac catcttcagt tgcctttgca ccaacttcct 240  
 tataatcctt ctccagggca gcaagatctt cacgggcctc atagaactcc ctctctttca 300  
 tacccttacc aacataccaa tgatcaaacg ccctcttggc ataca 345

<210> 5073  
 <211> 431  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220070b05a1  
 <400> 5073

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 attctaagta aaaagttaaa ttattatcat aagttatggt gggcattagc attgtccagg 120  
 gttcaagctt agaggattct tgcgtgtaag cccggtaagt ataaaggcat tcatatgctt 180  
 tcaccctaca acataatgcg tttcgaagat agtttcttgg ttcaatgaca aatggcatac 240  
 taataatctt aaacagcgat caaagactcc ttcattaatg aattatggac tttctcccct 300  
 caacaaatac acgtaatat aatctgggtcc tatgcttatt cttttttatga gagcttgggt 360  
 gagcgttgac ttatttttatt ttggatgaaa ttcatttgggt ttacttaaata agatttacct 420  
 taggatgttt t 431

<210> 5074  
 <211> 246  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220070b05d1  
 <400> 5074

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 cgtcgtccgg cctttctttt tcttcatttt acatctattt ccaagtataa caattatgaa 120  
 acgggatggg tcagggttaa caatattaca aaaagttacc atctatgggt acatataaaa 180  
 tcaaatcata cccaaatggg aggggaggga ggtagattga tcatgctaca taaaagggt 240

acatat

246

<210> 5075  
<211> 546  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220070b06a1  
  
<400> 5075

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agatgacccg tctcgccaaa gagttctttg ctttgccacc ggacgagaag cttcgttttg 120  
atatgtccgg cgccaaaaag ggtggattca ttgtctccag ccatctccaa ggggaatcgg 180  
tgcaggactg gagagaaata gtgacatact tttcgtaccc aaaaagagag agggactatt 240  
caaggtggcc agacacgcca gaagggtgga gatcggtgac tgaggaatac agcgacaaag 300  
taatgggtct agcttgcaag ctcattggagg tgttgctcga agcaatgggg ttagagaaaag 360  
agggtttaag caaagcatgt gttgacatgg accagaaggt ggtggttaat tactacccca 420  
aatgcctca acctgacctc actcttgccc tgaagcgcca cacggatccg ggcactatca 480  
ccttgctgct tcaggaccaa gtgggtggac ttcaagccac cagggacaat ggcaaaacat 540  
ggatca 546

<210> 5076  
<211> 549  
<212> DNA  
<213> Glycine max  
  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220070b06d1  
  
<400> 5076

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tatatatcat aatttaagtt ttctagtaa tgaaaataaa aatatggcta acgttcatt 120  
taaactctca tataaggaca aaaactgcat ttaaaactaa atgcaacata taacattatg 180  
gaggaggggg cataaagaga acataaatga attacatatt atgcacgacg ttactcaaa 240  
cgccatgaat ttggctcatg gtatctgtca taaagtgggt caattcgctc ttgacgcttt 300

cgcttgctca tctttgtagg atctgccact ttgaagtatc ttggagccaa ttcaacaagc 360  
catttgggggt ctatgacagt gacctcacgc atatattcct tagttgtcat cacaagctca 420  
tggtagatga ccagctctgg ttgtctctgg aacaaagctg aacttggatg gatatacaca 480  
ggctgggttct caacaagggg tctgtaacct tctgggggt cttttctgaa acatggaaaa 540  
aaacctgc 549

<210> 5077  
<211> 582  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220070b07a1

<400> 5077

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gggctcattc accttctttt ttctccgtta ttccctctct ttcttaatac accgggggtcc 120  
catgggggatt gcattctcct tcttcaactc caacctctgc ttctctttt tcattgactc 180  
actccccatc ttttgagagt gatgggtggt tgctaccgtt gttctacac cttcctcatc 240  
accgccatca tcatcaccag cttcttccgc cacatgcctt agaattatac tattcccacc 300  
ctccctcttt cttcaacaac aaccgttgac ttcactacag tcacgtggtc tttctctgag 360  
gatccaacca tggcggtctg aactgtcttc tgcgctgctg ctactgctgc ttttaaattg 420  
acaacaacca cttttgttta caaccaaaca cctgcttac accttctctc aacctccttt 480  
gattttcttt ttctctctgg cctttacctt ttactcggtt taagatccta tagtgagggt 540  
tgagatggt caaggaggga aggggtgcaa tgattctttt tt 582

<210> 5078  
<211> 457  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220070b07d1

<400> 5078

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aatgagctac atgctaaaca tacttcttcc ccatctacat tcctaattctc attgttctctg 120

ctatcattga taggactttt tttcaagtgg actgaggagt tttccaatcc tttggcacag 180  
gtccaaaatc atatataact tctctggggc aagaccatac aagttttata gcctccggtg 240  
ttccaattcc tgcacctctt gcgtcgccag cgggaccaa ccaatgattc tgaggagctc 300  
cggttgtcct tgctcttaga ccagcataag tagtaccatt tactgaattg ccaacaactt 360  
cctgtaaaaa caaaggatca tttgaaacta cagcagccgt taaatgggta tgcattcttt 420  
ccacagcatc caatacaact gatagttgac tgttttt 457

<210> 5079  
<211> 520  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220070b08d1

<400> 5079  
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tctggtgtgt gctaaagaaa atactaatat tagtaatata aactgaata gcctataaga 180  
tatgctcaaa atatggccaa aagcacaaaa agggccatca taaacgcaga agtaggtttt 240  
atcttaaatg agagattagg tgacagcaca ggattattag actggcttga tcttgcttca 300  
ggattcacag ctatggcagg agaaatagca ggtgtatttg atcgggtaat aggtaaagta 360  
gagagttcat catcataaca gttagattcc ctccaaccaa gattcatgtt ctcacgggtca 420  
aagactatac ggtaaccagt catgaaattt tgtgctatga tattcacgtt gttgcttttc 480  
aggactccca aacaaagtat gttaatacc tcaccactga 520

<210> 5080  
<211> 315  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220070b09a1

<400> 5080  
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 gggtcgggct cgcgcagtc tcaccggagg cccacattt cgctgcccag ttccgccccg 180  
 gcacttccca ccgtaaattc cgcgttggt cgggcaaatag cagccgctgg ctgaacggtc 240  
 ggaacctccg cgtggcggcg gtggggcggag gctcgggtctg aagagcccc acggtctctc 300  
 tggacatggg taaga 315

<210> 5081  
 <211> 535  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220070b10a1

<400> 5081

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 ccacactctc cgtggcattc cccggttccg tacttggtcg gagggtagc ggcgatgttg 180  
 ggtctcatag ccttcgtct attgacctt gcattgttct actggaagct ctcagggtac 240  
 ctgaaggga acggggaaac agaacgggac ctagaagctg gcgaaacgga gcaggaccag 300  
 aaacctgcga aaccatacga ggagaagatc ttggtgatca tggccgggca agagaagcca 360  
 acattcttag caactccgag tgtttcgagt tgcagcacta gcaggctctc tttcttcggc 420  
 gacaacacca gcactgcac ctgcgaggag aaccgaaaat cgcttgaaat ggcacaggct 480  
 gggactggng accaccgaac cgcacactcc tcgtcggatt agaacccttg atcgg 535

<210> 5082  
 <211> 511  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220070b11a1

<400> 5082

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 gggattctgt tcatcggtag gaccggttac atcggaataat ccatcgtgga agccagcgcc 120  
 aaagctggcc acccaacttt ccttttggg gagggagtcc actctctcca accccgcaaa 180



atcacccctc atcgacaatt tcaaaggcct cggtgtcaat cttgttttag gagatctata 240  
 cgatcaccaa agtttggtga gtgctataaa gcaggtcgat gtggtaatct ctactgtagg 300  
 acacctgcag ctagctgatac aagataagat ctttctgca attaaagaag caggaaatgt 360  
 taagaagttc tatccatctg agtttggtgaa tgatgtggac cggactcatg cagttgaacc 420  
 agccaagtct gcatttgcaa caaaggccaa agttcgccga gctattgagg cttgaggaat 480  
 ttccttcact tatgtgtcaa gcaacttctt t 511

<210> 5083  
 <211> 515  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220070b12a1  
 <400> 5083

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 gctttgtact atattaaatc tcagtattgt aaaggtaaac gtttgaattc taggagatta 120  
 agctcctcta tgcctctgtg tgtatcactc aatcagactt tatcatcacc tccaaataaa 180  
 atacagttga attcaaaagg ctcacccatc aatgggtactg ctcttgaatc tgtggagcat 240  
 ttgggtcgac aggggcaaca aattggcagt aaaatggaat tggagaatct tcaatccaag 300  
 gatacagtta ttgctgtaaa tggaaaagct gcagtgtata ccacagtggg ggatgatgtg 360  
 gaaaagggcc catttggtaca ggaggacaat catgaaaatc attttttctt aaaatcatct 420  
 ggcagagtaa cagatttaaa tgaaccactt gttgggaatt tatctccacc aatagaaaaa 480  
 gagacaaagg gtctcgagca ttctgggagc atgat 515

<210> 5084  
 <211> 363  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220070c01a1  
 <400> 5084

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 ggggtggtcct ccgatccctc cgcacttcaa accccaacgc tatgaaaact aagcgcgccg 120

ttgacgccgg aggcgattcc cccgccgacg aaccttcctt caagcggacc aacttctccg 180  
gcgagaaaac tacggccgaa gctgatgagg agcaagcctt cgatcccgag cctcacggcg 240  
gcgattccac cggctctcaa ctactcggtc tgctccttca atgcgcggag tgcgtcgcca 300  
tggacaacct cgacttctcc aacgatctac tgccggtgat cgcggaactc tctttgccga 360  
acg 363

<210> 5085  
<211> 382  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070c01d1  
<400> 5085

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gtttcaatcg ggatagggtta tcataaaatt tgccggttgc caaggggggg ggatcaacaa 120  
agacaaattc ttccaaccaa gcttggggga accatttttt ttgaccaggg tttccccttt 180  
ccaagggaac attcccagaa acaagttcgt ttgtgcagcc ggtttgccct tgagcgaaac 240  
gggcccaaac ccggcccgtt taaattattc cccccacctt ttcaactaaa cctcgcgggt 300  
ccttttgggc ccgcccacgg ccagatggt cctgatcttg cagcccaaca gatgctgctc 360  
ccccgggtgc cttttcaggt tg 382

<210> 5086  
<211> 335  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070c02a1  
<400> 5086

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tcaataattt gattatatag gtgtatgata gatagaagtt gttgaagggg aaaaatgtag 180  
aaatagtatc tgtatttttag gttatagctg ttcattgtat ttcagaaatc agcttttatt 240  
tgtggttggt tgcatatatg gctccatggt gtatttatgt atggatgtat atatacgttc 300

tctcttggtta tattagaaag acattaccaa ctagt

335

<210> 5087  
<211> 514  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220070c02d1  
  
<400> 5087

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aattagccta aaaagaaaaa ggaaataaca gcccagagcca tagattgacg aaacaaatca 120  
cgaatgtact attggacaga ttcgaggcaa aagtgactcg atcagtaaaa aatcaaatta 180  
ctaaaaaaaa tccatcagaa aatctcgcta cttaaggtaa gcgtctcaaa atgatgtcaa 240  
tttaattcaa cttggctaata cactcttag caaaggctc cactttacat ggacattggc 300  
ccagcgacaa aacttccatg ataacgggtcc caatatatgt cagtacatgc atgtctgaat 360  
gtcgtgtgtg ctgcttgccc cccatccaaa acgcattcca tatctaagct tggaatttcc 420  
ccctttatgg ggcaaagttg gcgttccaag ctgaacctga gtcattgtgc tctgaacaat 480  
ggccagtcca tccgatctgg ggcgttatat cttt 514

<210> 5088  
<211> 518  
<212> DNA  
<213> Glycine max  
  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220070c03a1  
  
<400> 5088

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tgctggggga agtgataagt atggaaatgt tctaaaatca gctgagttgt atgactcttc 120  
aacaggatatg tgggaacttt taccaaakat gcacgcaccg cgtagattgt gttctggttt 180  
ttttatggat ggcaaattct acgtgattgg tggaatgtcg agtacaactg tttcattaag 240  
ttgtggagag gagtatgatc tcaagacaag gagttggcgg aaaatagagg ggatgtatcc 300  
atatgttaac gtgggtgttc aggcacctcc acttgtggct gttgtggata atcagctata 360

tgcagttgag catctaacta acatggtgaa gaaatatgac aaggaaagga acacctgnaa 420  
 tgaattgggg aggctttcag tccgagcaga ttcttctaata ggttgggggt tggctttcaa 480  
 gcttgtggag agcacttttg gttgggggtg acaagggg 518

<210> 5089  
 <211> 409  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220070c03d1  
 <400> 5089

ctatgaacaa actgagcaat gaagatgaga ccggtcaatc tttcactaat aactgcaaga 60  
 gtaaattaaa actctcgcaa aacattgata tcgttacaac cactgatcca agtgaccctt 120  
 agtttagaat acagttacac gcacaagtgc tcatcacaag accatagggtc aaaacataaa 180  
 tggcgtgaac aatgagtcaa agcaatggca gaacaataat attaacgcca ccaccacttg 240  
 taacagtgca ctcatcttct ctgtagtggc agaaaaatta gacatagccc ctgctcttca 300  
 aactctccac tgcattcttg atgatttgct caacaggagt gaattctaga cctaattcaa 360  
 ccaggttctt tgatgcatcc tttccacttg ctcttaacaa ccctgggtg 409

<210> 5090  
 <211> 363  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220070c04d1  
 <400> 5090

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 ggaagccacc tttacacca tggggagggg ggttaattat taacacaaac cctctttacc 180  
 ccattaataa ctcacactat ctgcgccagt atatactaac ttaccattaa caatgggtcac 240  
 aactaccaca acccccacgt tgcctcaacc gataaagaaa ggtcaaccaa acccataatt 300  
 tatgcaaaaa aaacgctcaa tatactccaa ataagttcca tctgatccat gggcctcaga 360  
 ggc 363

<210> 5091  
<211> 398  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220070c05a1

<400> 5091

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cgtggacctt gcccaagacg gttccgacga gcaccagaag cgtccggaga tctacaccta 120  
cgaggcccc tggcacatct acgcatgaa ctggagcgtt cgccgtgaca agaattgtccg 180  
tctggccatc gttttcctcc tggagcagta tccgaaccgc gtggagatcg ttcagctcga 240  
ctactccaac ggtgagttcc gatccgttcc ttccctcttc tttgagcatc cctacccttc 300  
ctcctaattc attttcatcc cctttcagga ctgtcacctg ctccgatctt cttgccactc 360  
tcttcgactt tctccgtcgt ttggcacatt ctccgaat 398

<210> 5092  
<211> 417  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220070c05d1

<400> 5092

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ccgccctttt tttttttttt ttttttggtt ctgaaaatcc cattaaaata cttggggact 120  
aaggtagcat taacaaacta aggctcgtt taccctctaa accctaata aaactacttt 180  
cgttccaacg ccagaaactt ccaattttta cattggtttc aacaataaaa gacacaacaa 240  
tacaactgtg tgtccaaatc tgaagcattc ccaattatga catgcacata cagggaacat 300  
aatcagaagt gatgagttat cattaataaa atttcaaacc ctaagaatca tacgcttggt 360  
ggagaaagca attgcgaccc aatcatgctg cgaagacgac caccgaagct gcttaat 417

<210> 5093  
<211> 538  
<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220070c06a1

<400> 5093

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ctcccaccac caaatcacac ccctatatcc ttcccattaa gaaagacccc gcaacaaatt 120  
tgtactacac ttcagttggc attggaactc ctaggcacaa ctttgattta gtcattgatc 180  
tttctggtga aaacttatgg tacgattgtg acactcatta caactcatca tcctacagac 240  
ctatagcttg tggctcaaag caatgccccg aaattggatg tgttggttgc aatggcccct 300  
tcaaaccagg ttgcacaaac aatacatgcc ctgctaattg aatcaaccaa ttagccaaat 360  
tcatttacag tgggtggctta ggtgaggatt tcatattcat tcgtcaaaac anagtgtctg 420  
gtttgctttc tagttgtatt gacaccgatg cattcccatc attctccgac gatgangtac 480  
ctctattngg ctttaccat aacaccaaag gaatcatagg cttttcaaag tcacaact 538

<210> 5094

<211> 228

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220070c06d1

<400> 5094

aacagatatg tctttttaac ttaagatata agtcttacat aaagctacca tcagatataa 60  
tccacacttt aaatttgaaa gcttgactac tctactaagc tcttgcggtg attggcaaac 120  
atgggaaacc gttttgaaca ccactagact ctactctatc caaagggaaa aaagatgaat 180  
aagaaccaa ctgctctttc attgcagcac ttgggggggg ggggcgta 228

<210> 5095

<211> 555

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220070c07a1

<400> 5095

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tgctgatgag tcaacagggga caattggcaa gcgtttggcc agcatcagtg tagagaatgt 120  
 tgaatccaac aggcgtgctc ttagggagct gctttttacc gctcccgggtg ctcttaaata 180  
 tctcagtggt gtcacctctt ttgaggaaac tctctaccag agcacagctg caggcaagcc 240  
 ctttgtggaa gtcttgaagg aggctgggtg gcttctggc atcaagggtg acaagggcac 300  
 agttgagctt gctggcacta atggagaaac caccactcag ggtctagatg gccttgggtca 360  
 gcgttgcgcc aagtactatg aagccgggtg acgttttgcc aagtggcgtg ctgtgctgaa 420  
 gattgggtccc aacgagccat ctgagctggc tatccatgag aatgcctatg gcttggccag 480  
 atacgctgtc atatgccagg agaatggcct ggcttccatt gttgagcctg agatccttgt 540  
 tgatgatctc atgac 555

<210> 5096  
 <211> 195  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220070c07d1

<400> 5096

gggaaaaaac caggccatt tagggggggg ggggaacccc aaaacctccc ccaatttttg 60  
 aaggacatgg gaaaaaaaaa tccctcccca accccaaatt taaaaacccc taaaaggccc 120  
 caaggggccc ttttttttca agccacttt ccggggacaa aattgggggg gtaagccggg 180  
 gctttttttt ttacc 195

<210> 5097  
 <211> 482  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220070c08a1

<400> 5097

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 tgaacttgca cttgaaaaac cagaaaagaa tatgacagaa ctcataatcta ttctcttggc 180  
 tcatctttgt tcttgtgctg atgggagaga acagtttctg caacatgctg caggcattgc 240

tgtggtttca aagaggatcc ttagggtttc accaaccact gatgatcgag ctcttcatat 300  
 attttccttg gtttcgaagt tctcggcctc caatgagggtc gtgcaagaga tgctgagggt 360  
 tgggtgctgtg tcaaagcttt gcatgggtgtt gcaagcagat tgtgcttcct atttgaagga 420  
 aaaagcaaga ggggtactta ggttgacctc aaaaacatgg aacaattctt catgtattca 480  
 ag 482

<210> 5098  
 <211> 513  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220070c08d1

<400> 5098

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 aattaattgg tgagggaata aatacaaaat atcaaaccac aagggttttc tgcacaaacc 120  
 gcccgagggtt aaggagggtgt cacctaagga gtcacataa ctcaggaacg agtcttccat 180  
 cctgcgattc tatataaaga tgccttcattg aatcccttac aaatattatc agccccaatt 240  
 agtaattgaa taatctacac tcacccaacg gacaaggcag tatccccggc cagcgaaaat 300  
 tctgaaatca ggaactgcca aaccagtccc aacttaaaat attgggaaga ggggggaaac 360  
 taatgttgga gaaaaacgct gcatctcttc ttaaaggacc tggcaatgga ttgaatcaaa 420  
 gcctgtgaaa caagttaaaa tgcccaccgt attactatca actcccacac tgtttagcct 480  
 atctatgagt ccaccatttc atcttgcaat tcg 513

<210> 5099  
 <211> 278  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220070c09a1

<400> 5099

ggcgactgga gcggtctggag ctcgagctta ataggtttga gcggttagag ttaattattt 60  
 ggggctagtc tggaacttat aataatgtgc acatggatag cccggaaatc caagatcaaa 120  
 ttgaaaaatt cgcaggagggt gggaggaaaag aaaggccgat ctaagctttg tgggatgggg 180



agtctggagg cggatatttc aatacaaagc actatgctgt tcctatagca aaaacaggga 240  
 ctgttgctca taatagagat taaaacacag aacagaaa 278

<210> 5100  
 <211> 413  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220070c10a1

<400> 5100

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 gtaaaaattg aggggtggat aatattccgt gttattaaaa tttaattaat atagagagtt 120  
 tttataatat ggtaggattt tgatataata atatatcata tgtgtaggtt gttgttttag 180  
 agaatagaga tagagaatgg ccggctggct ggagaatcct gtccagaact cacatcacat 240  
 gagctgttct ttgttttggt tatttttcag aataaatggt ttactattat ttcaaaaaaa 300  
 aaaaaaaaaag ggcggccgcg gcggctccac ggtttccgat tggggtttga tttgcggaga 360  
 taagttaag gttggattgg tgcaggctgt tttcttcttt ggctgcatga ttg 413

<210> 5101  
 <211> 500  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220070c11a1

<400> 5101

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 tggctaccac taaagtttac attgtttact attctacgta cggacatgtt gagaagtttag 120  
 ctgaagagat taaaaaggga gctggttccg ttgaagggtg ggaagcaaag ctatggcagg 180  
 tacctgaaac actttctgaa gaggtccttg ggaagatggg tgcacctcca aagagtgatg 240  
 taccgattat tacacccaac gagctacctg aggctgatgg cttattgctt ggtttcccca 300  
 caagatttgg actgatggct gctcaattca aagctttcat ggatgcaact ggaggcctgt 360  
 ggcgcacaca ggcactagct ggaaagcctg caggaatctt ttacagcact ggttcttaag 420

gaggtggaca agagacntac tccgtgacat ctattactca gcttgttcac catgggatga 480  
 tttttgtgcc attggttaca 500

<210> 5102  
 <211> 569  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220070c12a1  
 <400> 5102

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 gatccatctg ctccccatgg agttcgactt ttgatcgagg actatcctta tgcttctgat 120  
 gggctagaga tatgggatgc tatcaagtct tgggtggaag aatatgtctc attctactac 180  
 aagtcagatg aggaacttca aaaagacccc gagctccaag cttgggtggaa agaacttgta 240  
 gaggtgggtc atggggattt gaaggataag ccatgggtggc aaaagatgca aactcgtgaa 300  
 gagttggttg aagcttccgc taccctcata tggattgctt cagctcttca tgctgctgtt 360  
 aactttggac agtatccata tggaggttta atcctgaata ggccaactat tagcaggaga 420  
 ttcatgcctg agaaagggtc tcctgaatat gatgcgtag ctaagaaccc tgagaaggag 480  
 tttttgaaga ctattactgg caagaaagag accctcattg accttacaat tatagaacat 540  
 ttatcaaggc acgcatctga tgagttcta 569

<210> 5103  
 <211> 512  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220070d01a1  
 <400> 5103

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 aaaactccct ctttccagca tctcaaata gagatctctt tgacaagata gataggatca 120  
 aaatccctat tgtagagtcc aaagaagatg atttgagacc acatacttca gccctatga 180  
 gaaaactctt ttatattatt gatagtgttc ctaggttgca tgatcaaata aactctctgt 240  
 ctcatgataa agaaaagctg caatcaatcc ttgaaactag ggatcttgac attaaggatc 300

tgaaggatga agtcaaacaa ctcaatagaa tctgtgaaga ctctaaaatg atcaagaatg 360  
aattgtctga gctcacctat gtattagaaa aaattatgga tattctggga gctgggtgaat 420  
gggtttaga taggaaatct aaagggtcga aggaattaat accagcattg gagaagcata 480  
tcattgccat tctttcagaa tctgaaaatt ca 512

<210> 5104  
<211> 540  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070d01d1  
<400> 5104

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ttctacattt ttattacatt aacgttcgaa aaaattcatc tacctatctt ctaccaccca 120  
aatcctttta tattgaagca atcaaacaat tgtaggctaa tacaatggag gggcttcgat 180  
tttaaagaaa aagaaggctg tcaaaaaatg agcccaaaca ttgaagacca gaatctctga 240  
atccctaaaa tgtgattgca gagaacaaat agtgaattga cgagactaaa gaaaaacagg 300  
ctaaagaagc aaaaagaaag acatgaataa aaagggacaa ttttatatcg ataatacaat 360  
ttgcagacgc acgacattca atgttgagca gtccaggtag gtttggtcac aacttttcta 420  
caagatcgtc cccagtagcc atatatgcaa gacaaacaaa tagccaataa gtcctaattc 480  
tgctctagga tgactcatga gaaccgggcc accagatacc cagagtccat caatacgatc 540

<210> 5105  
<211> 562  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220070d02a1  
<400> 5105

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aaaccgatgc agcatcctaa gcatcaacga ttggcacaaa acatcaacga tttcttctcc 120  
ccagagggtt tgattgagtt gttcaagggt ttagctgtga gctgatatga tccatcgata 180  
atctagacaa tgggatacac aaattcttag atctcttttt cctgataaca attctaaaaa 240

atattggcta tctctatttc cctctcaatc caacaaaata aactgatgtg gaaacactca 300  
acgatgggtct tttttctgtg aagtttggat accatgttga gctcaaaaga tcctctacag 360  
gagtccttc tcccagctcc attcatgggtg atttatggca caagttgtga aagattacag 420  
tcgtcctgaa ttttgtgtgg agggctcgca aagacatcct ctcggtgatg tccaatctaa 480  
aactccaagt ttatcatatc tgnttgaggt gtggagagac acctgaaatt gtgggccatg 540  
ctctcctctt ttgtgagaag aa 562

<210> 5106  
<211> 472  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220070d02d1

<400> 5106

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tccaatttaa cgaatatata atataaataa aaaagagata gcgaagaaaa aaggattaga 180  
aagtatcggt ttcctctgac ttctgagaaa cttctgggaa tcgggtcccaa acggttaaac 240  
gacgcacgtg acgtctccgc gtgccgggtt cggattccct acagcactac gtatctaate 300  
taaaatgttt cattcgatta gccgtcgccg cgtgtcagtt gcacaccctt tgatttgtgc 360  
tgtgacacgg actcaaccac ggcgattcct gattctcgcg atggttctgg caatccaacg 420  
gctcagattt cacgtctgca gaaccacgt gatgcaggcg cagcagggtg tc 472

<210> 5107  
<211> 502  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220070d03a1

<400> 5107

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gctgtggatg acgacccaat ttgcctcaag gtgttgaga atctccttcg caaatgccag 120

tatcatgtta ctacaactaa tcaggcagtt gaggcactga caatggtgag ggaaaacaga 180  
aataagtttg acctcgttat cagcgatgtg aatatgcctg acattgatgg atttaagctc 240  
cttgagttgg tgggacttga aatggacctt cctgtcatca tgttgtcagc acacggtgat 300  
acaaagctgg tgatgaaggg tgttacacat ggtgcatgtg actatttgct gaaacctggt 360  
cgaattgaag agttgaagaa catatggcaa catgtgggtc gaagaaagaa ttttgatagc 420  
agggatcaga acanggcttc caatgaggag aaggctccta attttgctgg gggaggtagt 480  
caaggcctaa gatcagaaaa ca 502

<210> 5108  
<211> 458  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070d03d1  
<400> 5108

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aaaggcaatt tttatgggga tacactacag attgaaagga aaaaaagatg gaacagatca 120  
gatggctaac aaaagtccat aagtgaaaca acaaaatggt ggccaagaaa ataaatttag 180  
tagcagaaca taaaaatagg tgtacattaa ccggtttcag agactggagc aagtttcacg 240  
attttattgc tcttggttc gttctgggta agaagaaatc agttgcatga tccaacaggg 300  
taggcatcaa atcccatttc tccatccaac aatgtcgact cattttgctc ctttttgacc 360  
attacacca ttatgtcatc caaggtecca aaagtattct gcataaatcc atcttgggac 420  
ttcatttgct ccaaaatgta ggcttcattt ggcttcag 458

<210> 5109  
<211> 360  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070d04a1  
<400> 5109

caagtttctc atatgatatt gcaattttat cacttggttac ccactatata tacaactgtg 60  
gggtgctagt gggagttatt gcgagctatg acatcttctt acaacacctg tatcacctgc 120

aattgcttta ggaactgtta tctctctcgc tcgcgctcca aaaaaattca aggggtgaagc 180  
gtattaaggc aaagccaaaa acagctgaat tttcaatcgc aagaatgtag ttccatgcat 240  
cacggaagcc aaatagttgc aatctgcaat tctgaatttc tttgtaggcg agatagggaa 300  
tttgaagatt atctttaaaa aacaaaatga aaatgtttta aaagaaaacc taaaagtttg 360

<210> 5110  
<211> 300  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220070d04d1

<400> 5110

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actattgggc ttccgggatg caaccaacaa atttttacaa ttgaaaatct aagctgtttt 120  
tggttttgcc ttaatacgct ccacccttga attgaggaaa acgccagcaa gagcttttagc 180  
tgttccaaaa gcattcacag gtgaaacagg tgtttggaag aagatgacag agctcacaat 240  
ggccacaacc cgttttacac agttgcccac ggtgtggtga acaggtgata ccctttgcaa 300

<210> 5111  
<211> 561  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220070d05a1

<400> 5111

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ccagcaatca gcacgcggtc gacggagacg ccaacgacgt cgtagatcc ttttcccacc 120  
gcgacgacga tgaagacggc aagccccaac ccctcaccgg ggacggcgcc agtcctggaa 180  
agatattcat aggggggttta gcgagagaaa cgacgattgc gcaattcatc aagcactttg 240  
gtaaatacgg tgagataacg gattccgtca tcatgaagga ccggaagacc ggccagccgc 300  
gtggtttcgg cttcataact tacgctgac cctccgtggg tgatacagt attgaggaca 360  
ctcacattat caatggcaag caggtggaga ttaagcggac gataccgagg ggggctgctg 420  
gctcgaactc aaaggacttc cgaacgaaga agatTTTTgt ggggtggaatt ccttcgactg 480

ttactgaaga tgaatttagg gacttcttta cacgctatgg agaagtcaaa gatcaccaaa 540  
 taatgcggga ccaactctact a 561

<210> 5112  
 <211> 451  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220070d05d1  
 <400> 5112

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 tagccattaa caaaactaag aatacaacca tctgcacaat ttgcagctca tacatcaatc 120  
 cgatagtcac acttcaactg gccgagctaa aaaattgttc ggtcatctat aggctggcga 180  
 gaggggtgctg ctaataacta atgggactta acaatatcat taacagtttt ccatttttta 240  
 gaaaataaaa atatgtagcc taaagaactg aataaccaa caaactacaa acttgctttg 300  
 atgctagaaa tattagtctt agactataag tcttcgatga catgcttcta tcttccataa 360  
 ggatggatc gaccagttcc tgcacctgcg tatccccctc tagtcccata aaatgagcct 420  
 ccagcaggcc ccccatatcc accgcctaag c 451

<210> 5113  
 <211> 555  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220070d06a1  
 <400> 5113

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 tgctttcggc taagcttgct gaaactggcc tcgtctatgc tgtattgggc agttaggcga 120  
 attcaaagat ctttgaacac ctcttctttt attacctttt tccaacacct acctcttctt 180  
 tctctttctc cctctcacac actcgtccta ggtttgattt tcccttctt ctccaatac 240  
 tctccatta ttttattcga aacaccaaac caacactcta gcttcgttac ttgccctttt 300  
 ctctgcccag ctacatgctt gtgtaagaac taataagcca gctgaagaat gtgggatctg 360  
 aatgactccc ccgatcagag aaaggactac gagtctgaag gctgttcttc ttctctgtat 420

gatgataaag gcaagagggg ggcatctgtt tccaattcaa gctcctctgc ggtgggtccgt 480  
 gaagatggat cggaagaaga agacagtgaag agaggtggaa gcagaacatt ggataacaag 540  
 aaaacccaac aaata 555

<210> 5114  
 <211> 397  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220070d06d1  
 <400> 5114

aggaaaaaat ttcccacgtt ggtagtttg actggcctat aacaaggcca gaggggggttc 60  
 ccaatttggc tctccctatt ctttcacca atagtaaagt taccgttttg tttgggcttt 120  
 tcctaaaaaa gggggggggg ggacctaaca taaaccatta tttaaactgg attcactcgt 180  
 acatacatgc tcacaaaaca aataggggga gatTTTTTTT caaatggaaa atggcctggg 240  
 aaaaataata tcttgggggg catgaggggc tcatgagaaa ggggaaccca tttttctgga 300  
 gccaccttg ggaggtcta atttgctggg ggaatcctga tgatgccgcc acagttgctt 360  
 acaaatgggg agggcccgct tgttcccttg ttttta 397

<210> 5115  
 <211> 533  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220070d07a1  
 <400> 5115

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 tcaagtccac cttcactaaa actctttag ctcccaagg cctctctgcc tcttcaccac 120  
 tccacctcct gccttctaag aggcaattta gttcactgt tagggccatc caatcagaaa 180  
 agccaaccta tcaagtgatt caaccaatca acggtgatcc cttcattgga agccttgaaa 240  
 cccagttac atccagcccc ttgattgcat ggtacttata gaacctcccc gcatacagga 300  
 ccgcagttag ccactacta agagggatcg aggtgggcct ggcccatggc taccttctgg 360  
 tgggcccatt cgtgaaggcc gggcctctga ggaacaccga gatcgccggg caagcaggct 420



ctctcgccgc tgggtgggctt gtggtgatcc tcagccttng cctcacaatc tatgggattt 480  
catcttttaa cgaaggagac cnaatcactg ccccgctact gaccttgacg ggc 533

<210> 5116  
<211> 538  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220070d07d1

<400> 5116

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atcatttaca tccatctcta ttgcacaaat aaggatccat ttccacccat tgtccattca 120  
tagagaatga ataacaacaa aaagtaaaca aagataataa gcactttctt cacttgatgt 180  
agtaaggaag gtccaagacg tagaggagga agtaggccca aataacaccc gaaatgcctc 240  
cgaagaagaa gcctccggtg aacttggccc acccatcagc agtttggagc tgatcgggct 300  
ccttcttgcg gcccgtaag gtcagtgcg gggcagtga tgggtctcct tcgttaaaag 360  
atgaaatccc atagattgtg aggcaaaggc tgaggatcac cacaagccca ccagcggcga 420  
gagagcctgc ttgcccggcg atctcggtgt tcctcagagg cccggccttc acgaatgggc 480  
ccaccagaag gtagccatgg gccagccca cctcgatccc tctagtagtg ggctcact 538

<210> 5117  
<211> 336  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220070d08a1

<400> 5117

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gtctcgcaac tgcatatatt aatgattaca attcatcgct agctagagct gtgtcagaac 120  
tgggtgcaaga agcacatcat gaagcccctg cttgggtctc acggtatgct gctcgatctt 180  
cttttggtgg aggcaggaac cggcgatcag gcggctcgatt tggtagtcga gactttcgaa 240  
gagagggctc tttcagtaga ggttcttctg attactacag tgcgggaaac agcagtggcg 300

gtggatatgg aggctctggt gggatatgctg gtggag

336

<210> 5118  
<211> 243  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220070d08d1  
  
<400> 5118

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gacacaaacc aacacaaccc aataatcaaa ctgccatata gaaatatgac atcaatcaac 120  
cggacccaaa accatttgtg cacaaaaccc aaaatcaaac actgtaccct ctgatggatg 180  
gatgcaaaac cccaccatta aaaaggggag aaccccccaa acaagcctct tccatggagg 240  
cct 243

<210> 5119  
<211> 377  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220070d09a1  
  
<400> 5119

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accacttcta cagcttgaag gccagttct ccaacaccta caccatcaag gtggagcacg 120  
atcatcggtt ccgcgacttc aggtccatcc tgggtagagt ctggctgctc actgagctcg 180  
accctacga cgtgcacggc gtcaccaaact gctgcgatct aactgcggac gagttccgctc 240  
gccagtgcct cgggctggag ccgatccggt ttccggcgca cgcccataat gcgcccaccc 300  
tgggcaccaa ggatctcctc agggatatttt attggcgaga ccgacgagcc gtcactaacg 360  
tcaaggacca acgggacg 377

<210> 5120  
<211> 460  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220070d10a1

<400> 5120

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tagaggatac atctggacct tcacttaaca tccttattaa gctcatggcg gttgagtctc 120  
ttgtgtttgc tcccttcttt gctacacatg gggggctact ctttaagatc ttaaaggatt 180  
tgattgaaaa agagtatcgt ccatcatttt ttacatcga cagaacaagg aaaagccgtc 240  
ctttaccaat gccttctcgt ttttgcgtta gtctttaact catctgtcat gtcaattcca 300  
ttgtgtttga aaccttttcc tccccacct ttgaaacaaa gtatatatttg tctcatgtta 360  
gtttaagaca actttgatta ggctgagtct gttgcgaaaa tttttcttgt atgatgacga 420  
tgatgtttac catctctttc ccgggggtcaa ttttttaaat 460

<210> 5121

<211> 443

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220070d11a1

<400> 5121

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aaccctaatt tctttaatcc tttttttgga attcgacaat ggagcagggg gggagctggg 120  
ggatgttcaa cctgttcgtg acgcactagg acgggaaaac cctaaccctc ctattcctca 180  
atccgaggcg gtatgcaagt ggcaccgaag ctttactact ttaaagtggg gtacttcttt 240  
gacagagagg ctgcgcaaga ccttaccatc atgaaaataa aggatggcat gtccactttg 300  
tgcaaccatt acttcatcaa cctgtggccg gttccggcga tcggattccg gtcgaccctt 360  
aatcaagtgc aatgattgtg gagcacggtt cattgaggcc aagtgaaca aaaccctata 420  
tgagtggcta gccctgaagg att 443

<210> 5122

<211> 588

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220070d12a1

<400> 5122

ctggtgcaca gtaacagtgt cacctgaaaa ttttggacat ggatctcctc caaaatgtct 60  
tgaagaaact ctcaagtggaa gctatttgtt cctgatcatt ttaacctcag aaaataaata 120  
gattaaactc tccagattga tttttccac cactattcat ttcaatacag ttcttttggg 180  
tcaaccaaag tctacacttc tgaatctgat caacacgagc attattattt tggctttacc 240  
aaggtgaagt tgcagaaaac acaacacacc atatggttga aagcctgtaa agattgctga 300  
gatgattgtg gatatgtgta tatacttgtg ttctgcatgt tatacagagg tgaaagggtga 360  
tgatttgctt ggtgcactat gagacgatac tgaattgagt ccatgtgcta gtgtttttaga 420  
cttaggtgtg gaagcctctt gcttctctgta atattagttt tcccttgtaa gctgcattca 480  
tagtgattta gtttctttct tctgtgaaga aacttctcaa gatgataaag atcagattca 540  
gtcattttgg tttcgttatt tcatgcattg tggcctttgg ttctaaaa 588

<210> 5123  
<211> 561  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmfl02220070e01a1  
<400> 5123

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acgattacgc tagaggtcga gtcctccgac acaatcgata acgtgaaagc taaaatccaa 120  
gacaaggaag gcattccacc ggatcagcag cgtttgatct tcgccggtaa acaactcgaa 180  
gacggcagaa ctctcgccga ttacaatatc cagaaagaat cgacgctcca cctcgtcctc 240  
cgcttctcgc gtggcatgca aatcttcgtc aaaaccctaa ccggtaaaac gattacgcta 300  
gaggctgagt cctctgacac catcgataac gtgaaagcta agatccagga caaggaaggc 360  
attccaccag accagcagcg cttgatcttc gccggaaaac agctcgaaga cggcagaacc 420  
ctcgccgatt acaatattca gaaagaatcg acgcttcac tgggtgcttcg actccgcgga 480  
gggatgcaga tcttctgtgaa gacgctcacc gggaaaacta ttactctgga ggtggagagt 540  
tctgatacga tcgataacgt g 561

<210> 5124  
<211> 477

<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070e01d1  
<400> 5124

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ataagattca accaaactag agaaggccac cacggagcct aaggacaaca tagacataga 120  
aattttgtta tatcatcac attcaaggaa gagaaaatct caatagcaag attcaactga 180  
aactagaaat cgccaccacg gagcctaaga acaaggggaa gcgtggattc cttctgaata 240  
ttgtaatcgg cgagagtgcg tccgtcttcg agctgcttcc cagcgaagat aagacgctgc 300  
tgatccggtg gaatcccttc cttatcctga atcttcgcct tcacgttate gatcgtatca 360  
gaactctcca cctccagagt aatagttttc ccggtgagcg tcttcacgaa gatctgcate 420  
cctccgcgga gtcgaagcac cagatgaagc gtcgattctt tctgaatatt gtaatcg 477

<210> 5125  
<211> 403  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070e02a1  
<400> 5125

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acgattacgc tagaggtcga gtcctccgac acaatcgata acgtgaaagc taaaatccaa 120  
gacaaggaag gcattccacc ggatcagcag cgttagatct tcgccggtaa acaactcgaa 180  
gacggcagaa ctctcgccga ttacaatate cagaaagaat cgacgctcca cctcgttctc 240  
cgacttcgcy gtggcatgca aatcttcgtc aaaaccctaa ccggtaaaac gattacgcta 300  
gaggtcgagt cctctgacac catcgataac gtgaaagcta agatccagga caaggaatgc 360  
attccaccag accagcagcg cttgatcttc gccgggaaac agc 403

<210> 5126  
<211> 519  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070e02d1

<400> 5126

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atcaaattat accaagcact aattcttggt tcagatcata aggatccaag tattgggggt 120  
aactttaacc tcagcatgag ccaaacctcc tctgcaaagt atcctttgaa tacattctaa 180  
acagtcacaa tctcaaagtc tgcattgctga gaacaattgc ggaagtaggc tgttatatgg 240  
tcaagggtgt tgatgaagat tttatatggt tgatccaact ccaaagttca atgacttcaa 300  
tttagtagaa ggcaaacatg ctggcttcac aagggtgac gctccacaag taaccttaac 360  
tgtacagaag gatagtttaa cagcttctgc attatgatgt ccttgtaaca tattgatcaa 420  
accatgtaaa gtctcctctt ttttccttcg acgacatttt tccaatcgat catgtgggtc 480  
atgtatatca atgaccaagc catccataga aggaagccg 519

<210> 5127

<211> 581

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220070e03a1

<400> 5127

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tgatcaatgc tttagaaaac tttgttatgc ttctagcaga taatctggag gcaaatagat 120  
tacggtgtgg taagcttggc aaagacccta ctgttgaaac tagctttcta cctgacagga 180  
gtgctgagga ttcttgttca gtgagcgaga ggctgaggag caagctgagc gtgaaaggct 240  
gcgcaaacag tggcttcgtg agcaggagca aattcgaaat gagcctcttg aaatcacata 300  
cagctattgg gatggaactg gccacaggcg tgtgatccag gtacgcaagg gtgacagcat 360  
aggagagttt cttcgagcag ttcaacagca acttgctcct gaattccgag agattcgaac 420  
aacatcagta gaaaatttgt tatacgtgaa agaagacctt atcattcctc atgtattagc 480  
ttttaattca aaaactctgt gtgcaacttg ctatcttggg tgtgtgtgta taagctatgt 540  
taacattatt ttaaccaaag gatattctgt aacttattta c 581

<210> 5128

<211> 418

<212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220070e03d1  
 <400> 5128  
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 tgaggagcac atgcagcaat tcagtcttac tacatgattc tctttattta gaaaacaaag 120  
 ttttaccaat taaacaaact tatcagctag gctttgcacc ttagacaaac tgattaaggt 180  
 actcatccac agggatgtat ttcacatcag gatatagagc tgaagcttcc actccaaaag 240  
 aagactcaat ttcaaagtta gtatgatccc ccttaacata agaagagtgg ttaattgaca 300  
 gggtcacatt cacgggtggg gcggaactcct taatttgctt caggagtgtt ttttttgaa 360  
 cataaattct ttgaagagt ctaccaatct ttcctccca gagagtaaca agctcatt 418

<210> 5129  
 <211> 526  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220070e04a1  
 <400> 5129

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 atggcaatct tgtcaagttt tgctcctttg accattctta gtttagtctt gttagtgggt 120  
 ggaatcattg tgtctggggt tgaagctagg ccaagagcat tctttgtgtt tggagattca 180  
 cttgttgaca atggaaataa caattacttg gccaccacgg cacgtgccga tgctcctcct 240  
 tatgggattg attaccctcc aactcataga ccaactgggc gtttctccaa tggctacaac 300  
 attcctgac ttatcagtca gagacttggt gcagagtcaa cattgccata cttgagtcca 360  
 gaattaagag gagataagct actagttggt gccaatctcg cttcagctgg aattggaatc 420  
 cttaatgaca ctggagttca gtttgtaaac gtgatcagaa tgtatagaca gctagaatat 480  
 tttaaggagt atcaaaaccg agtgagtgct ataattggag cttcag 526

<210> 5130  
 <211> 430  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220070e04d1

<400> 5130

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atgtgtttgc gtccaacgct aagatgggtgc taaggttcat tgggttcatg taggctttag 180  
aacctgacat aatttctctc acaatgagcc tattggcctt ttcagatgga tggaatgcat 240  
cccaaatgc atactgctct ctgttggagc aaaggttggg gagtgctgtg catagcccaa 300  
gtccattgta aggtccttgc ccacagcaag ctacttgtga tgtaacaaat ccaaattgtt 360  
gggggttagt aacgaagtcg ttgtgagctt ttcctgtgtt tgcagcaatg ataacgtcac 420  
ttccaatttt 430

<210> 5131

<211> 544

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220070e05a1

<400> 5131

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aataaaacct tgctcttttt tcacgcccta gtcattttc ttctccgttc tcttctctct 120  
gttctcact cactcgcatt tattcaccat gactaagcaa caagctaatt ggtctccata 180  
cgataacaac ggaggatcat gtgttgcaat tgctggagca gattactgcg tcatcgccgc 240  
ggatacgagg atgtccaccg gttacaatat cctcactcgc gattactcca aaatctccca 300  
actggcggag aagtgtgtta tggcttcttc tggttttcaa gctgatgtca aagctttgca 360  
gaaggttttg tctgctaggc atttgattta tcagcatcaa cacaacaaac aaatgagctg 420  
ccctgcgatg gctcagttgc tctcaaacac tctttattac aaacgcttct ttccttatta 480  
tgctttcaat gttttgggtg gccttgacaa tgaaggaaag ggatgtgtct tcacatatga 540  
tgct 544

<210> 5132

<211> 445



<212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220070e05d1

<400> 5132

tgaaatgcat ngcatncgat tcnctgggat gtaattaatt ngccgagatg cctagctcac 60  
 tagccggcct ccgccctttt tattctctct tttacattct gtatcacttc ttcattaaac 120  
 ctaagggatt tggggatact ttttaatacat ttaccggcaa tcccccattht atttatccta 180  
 gttcctcgct ttcttcttga tgacgctgtc ctttcttttt gatagaaaat aacaccctta 240  
 ctactattac tatactacgt gggttcacca ccaatcaaca atgggttttaa cctcttctcc 300  
 cacacactcc tctacacgtc tegtgcgct cccctccttt ttacactcca accaccgttt 360  
 agctttcggt cgtagagtcc gttataacct ttcacacca aatctccata atctcaccat 420  
 ttaaattctc tttcccaact tccca 445

<210> 5133  
 <211> 459  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220070e06a1

<400> 5133

gatcttcttg acatcgactc cattgttgct gccataaagg gttgttccgg cgtaatccac 60  
 ggtgcatgtt ctaacatcat tgggtcaagtc gaagatcccg agaaacagat attggaaccg 120  
 gcgataaaag gaacggctaa tgtgttgaag gcggcgaagg aagcaggggt ggagcgcgtg 180  
 gtggcgactt catcgatttc gtcgattatg ccaagtccta attggccagc tgataagatt 240  
 aagggagaag agtggtggac ggaccctgaa tactgcaagc aaaaggggtt gtattatctc 300  
 attgcacaga ctctagcaga gaaagcgggt tgggactttg cgaaggagac aggttttgat 360  
 gttgtcatga taaaccctgg tacagcattg gggcctctgc ttcctccaga atcaatttaa 420  
 gcatggttgt gcttgtagt gttctcaaag ggggcaaag 459

<210> 5134  
 <211> 538  
 <212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220070e06d1

<400> 5134

acagaaattg atgtattcat tgaacaaata atgagatttg ctacatcaca agccccaaaa 60  
tattccttcat gaatcatcac aataatgcgc aagcttttatt acaccacaaa caatgcgcac 120  
ttaaatacac aggcacagta aaccagaga tagcttttga cttattctct tctgggtcgaa 180  
catagccctc gccccacata caccagaatc atttgcctc tccccaaaa caaaacaagt 240  
gttaatttca atttatccat gtggtatggt atggggacat aataatttac ccctagtttt 300  
attgatgtac attttatttc acgtgtttat atgaaagact tgaaataatt gaagagacgt 360  
accacatggg ataaattgaa attaactcag cagaagcaa tagattactc tagtatatat 420  
agtatgatgt tttttttttt ccgataaaat atagtatgat atgtttttga acagtggaca 480  
atgcaaatta tatatagggg tattcctgga ctagaataat tgaagtgaca tgaaattt 538

<210> 5135

<211> 480

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220070e07a1

<400> 5135

ggtcaacctc tggtttgacc cttctgcgga tttcacact tatactatta tgtggaatca 60  
tcatcatatc gtgttctacg ttgatgattt tcccattaga gtgtacaaga acagtgaggg 120  
aaagggaaatc ccatacccaa caatgcaagc aatgggagtg tattcaacat tgtgggaggc 180  
tgataattgg gcaacaagag gggggttgga gaaaattgat tggagtaagg caccttttta 240  
tgcatattac aaggactttg acattgaagg gtgcccagtg ccaggacctg ccaactgtgc 300  
ctctaacc aaagtaattggt gggaaggggc tgcataccaa gctcttaatg ccattgaagc 360  
ccgaagggtac aggtgggttc gtctcaacca tatcatctat gattactgcc aagataagtc 420  
aaggttctca gtgacccac agagtgcctt gccgcattta aacnctta tcaagtcact 480

<210> 5136

<211> 372

<212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmfl02220070e07d1  
  
 <400> 5136  
  
 ttcccttcctt tttttttttt ttctctgtat ttttccattc tttttttttc tttttggggg 60  
 tccgggtaaa aactagtacc gatttccact ttaacccatg ggacaataaa aaaccctttg 120  
 tactccccct ttttcttctc tctttccccc ttaggcgggg acctttattg cgccctacct 180  
 ttggccctct ccctaacaaa ggcattggtg cccacaatt attctaaaac ttgtcctctt 240  
 ttggttgtag ccagggcact tccctacata aactaacctt tttgttttaa tacaaaaaac 300  
 ccccttgga taactaaatt tccatgggcc cattggaaat ccggtgaaag agtccttttt 360  
 tttttgctag at 372

<210> 5137  
 <211> 509  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220070e08a1  
  
 <400> 5137  
  
 ctctctctca cttgggtacg tatgttggtg tcttcatttt ccaattgcat gtgatctctc 60  
 atttctcaat tcaatttctc ccctttccct cttccctta atctgtgagg aaaaggaat 120  
 tatgggttct ctttatttca gttcaatttt tccttttagt gttaaaaata ttacctttat 180  
 tattattatt attatttgtg ggagattgat tcatgtaatt tgttgaaggg ttgaagatga 240  
 gaatttggtg agcaggatat gtttgatatt agatttcctt taatttattt ggtggactta 300  
 tttcctgcat gtttctgcac ccaattctat taacaattct tggatcatgt agtttggttt 360  
 atttttatgt gattctgggg caattctcaa tttatgtaaa gcattggagc aaggaggttg 420  
 cacattaggc cagctgtttg catgaaaaaa tatgaattta tntattggca ccaatcttga 480  
 cccaatacgg atatccattc atttggttg 509

<210> 5138  
 <211> 491  
 <212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220070e09a1

<400> 5138

agatcatagt atgnccctcg angangttgc acggaaagag ggcgnaagtc tnggaaaggc 60  
ctctacgagc gaataaaccg tacctgttat ttgctcgcta tcttnaatac tatggaaatc 120  
gactgtgcag tgaggcactc gtgggggcttt ttctattgcc cccaatcccc gctggcgagc 180  
tccgtaccag aaagattctc tggcacctag ttactatca atgctcgagc agttttgtgg 240  
ctcatcgccg tctttcaggc tggcgatgct ttaatacaat catatcacia tttcatcaca 300  
gactttgaga cgaaactcaa ccttcttaag cttgcacatt ttgctgccac agattctcgg 360  
cagtattttg aaaaagaagc tgctgttggc taacttggag gggtgattta caaacttcaa 420  
gacactttgg agcagcgcat agataaaacc tatcttttac atttagatgt caatagccat 480  
tttcatgctt g 491

<210> 5139

<211> 271

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220070e11a1

<400> 5139

gaatatgtgt gctgagaatt gaatgttttt attggtttta acaatgtaga gaggaacccg 60  
ttgttgattg aggaaggtag tttttgactt tcggttcttt tggttctttt ggttcttttg 120  
gagttgtcgg tgggtggttt ggagtgttgc cgaaatgaat gattctactg tgaagacttg 180  
gccatcacgg agaagaaggt gcatcagctt aaacctgggt gctgcgttgg cattctcttt 240  
caccttattg attggaagag gcaactctcc a 271

<210> 5140

<211> 565

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220070e12a1

<400> 5140

ctcgagccga atcgggctcga gaaaagattc aggatcagga attaatccac tagatatccc 60  
aaagatatctc actaagtttg cacaaaacca atcggttaaca acaagaaatc ctgctggaag 120  
tggaacttggc ctggcaattt gtaggagggt tgtaaattctt atggaaggac atatttgggt 180  
tgaaagcgaa ggtattgata aaggatgtac agtcactttt attgtaaaac ttggaatccc 240  
agaccgatca aatgaattta agctaccttt tgtacctaaa gtaccgggaa atcatggatc 300  
tacaaactttt gctgggctca aagttcttgt cacggatgac aatgggggta gcaggacagt 360  
aaciaaggga cttcttatgc atttaggatg tgatgtcacc acagcaagct caagtgaaga 420  
atgtctgcgt gttgtttctc tggaacatga agtgggtcttc atggatgtct gtgcagggtc 480  
agatgggtat gaactagcan tccgtataca tgaaaagtta ctaaacaatca agattgacca 540  
ctaatagttg ctcttactgg aaaca 565

<210> 5141

<211> 518

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220070f01a1

<400> 5141

acagaataag aaagagagga agccgtagat tccaacgctt tctctctgag tcacacacac 60  
acacacattg cagcaacaac aacaaccaca cccgattcca tgagtcgcta cgatcccaat 120  
cccttcgacg aagaaccggt cgagggttaat cccttcgcgg atggagcagc taaaggaaaa 180  
ggctcagggc aatcaagtta tagtggaggt gcattttata ctactaacac tggaagtgtt 240  
ccctcctcaa actcaaggct ctcacccctt ccaccagagc cttatgatcg tggggcaact 300  
attgacatcc ccctaaataa tgcaaaggac gcaaaagcaa aggagaagga acttcaagct 360  
aaagaggctg aattgaaaag aagggaacag gaactaaaac gaagggaaga tgctatagca 420  
cgaagctgaa tagttataga ggagaaaaat tggccacctt ttttcccatc attcatcatg 480  
acattgcana ggaaatacca gtacatcttc aaaggatc 518

<210> 5142

<211> 484

<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220070f01d1

<400> 5142

ggtaaggggc tatctcaaac aatgatttct atatatgcac aactaagctt ctatcttaat 60  
taggtggggtt gacacaaacc taggaaaacg catcccagta ttaaacaag agtaaagttt 120  
gtaaggagaa ctggtaatgg taactcaaga aatcattttt cgggtatata cattaggaaa 180  
acaattgtaa gtgccatggt atagagctgc catcattgtc cctctcgag cctcacgctt 240  
taaaactgca gccttgccac tgccacggaa gtacatatat acttgctgta taaccagat 300  
gctcagcact gactcgagac agaaaaggcc aaatccaatg aagtagaata tcccaaccaa 360  
tgcattgtct cccaacacat caatcgagc caaatgcct gtgagagatt ttcctttgaa 420  
gataattggt ggagcaactg cagctaaaat gcaaaaggca atgtgcaaca tgtaaagcaa 480  
gaag 484

<210> 5143  
<211> 559  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220070f02a1

<400> 5143

ggcaatttta gctgcatctg gaaagttttc tctgtgctcc tcctcctttg tcatcaacct 60  
accactgta tcttatctac ttttccgtgc actgcttcac tacatctatg ttggctggac 120  
ccagattccc caggaacaac tcggttcttt gagggattta agtctacagt ttgaagtgac 180  
accactgggtg aagcagtgtg aagagactat ggaacggttt aagctagata agaagttggt 240  
tgacacgggc aagaatgtgg agttaacata tccatctatc cgacctcatt gctcaacttt 300  
gccctcactt cctgtcagca ctcagcaact gaaacaattg aaattaacag gccagtacag 360  
tgatgtaaac atctacattg agggttatgg gctcattgca cgagctcata aaattgttct 420  
tagcttatgg agtatccnct ctgctcggat gttcacaat ggaatgagtg aaagcatgtc 480  
cctcgaggct actttaaggg atgtcccacc ggaagctttc aaggcctatg ctaacttttt 540

atatgatggg caattgaat

559

<210> 5144  
<211> 212  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220070f02d1  
  
<400> 5144

catcaatctt tggagaaggc ctacttcctc tgcgatgact tggagagcca gaatcaacac 60  
gtgactgttt ccttcctcta tgaggatgaag tttctctatg acattttgga gaaacaggtg 120  
atttccttgt ataaggactt acactcctac ttctgtttct tcttgaagca gatgaacgat 180  
gatcaagtga tctatctgaa tctcgtcttc tg 212

<210> 5145  
<211> 591  
<212> DNA  
<213> Glycine max  
  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220070f03a1  
  
<400> 5145

gaagggaaga ctaaaactaa aacccccactc tctttttccg agtcttccag tgaaagaaag 60  
gcagcgatgg aagaagactt cgacatcccc ggcggcgagg aaatggatct cggcgaagac 120  
gaggtcggcg aggagaggga gatcggctct ggcggcctca agaagaagct cctcaaggaa 180  
ggatcaaggct gggaaacccc cgaagtcggt gacgaagtcc aagttcatta cacgggggact 240  
ttgctcgacg ggactaagtt cgattcgagc cgcgacaggg attctccctt cagcttcacg 300  
ctcggacaag ggcaagtaat taaaggatgg gatgaaggta ttaaaacat gaagaaaggt 360  
gaaaatgcta ttttcacat cctcccgag ctagcttatg gtgaatctgg tccccctct 420  
actattcctc ctaatgctac actccaatgt gatgttgagc tgctgtcatg gactagtgt 480  
aaggacatat gncaggatgg cggatatnt aagaagataa ttactgaggg ggagaaatgg 540  
gagaacccta aggatcctga tgaagtattg ggtaagtatg aaagtcatt a 591

<210> 5146  
<211> 497

<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220070f03d1

<400> 5146

gaaaatagta acaattgaca aattcttggtt attgacaata acattgtatt ttgaggatac 60  
atcattatga caaatgacaa cacaatagta ttgaacccaa gtgttgatta ctttctctct 120  
ctctctcatt ctctctctct aattaacatc ttattctggtt ggaaattatg aactggaaac 180  
tgacatatg acgcacataa ctcttttgct tgcttaagta tatagaaaca tgaaatggta 240  
gatgtataga gatctcactg agatgatccc ttaagcttct tagcaatgcc agcaaagtac 300  
ttcccttgat gaaaagcttg agccaattct aactcagttg gttgtctgga accatccccg 360  
gcataggtac ctgcaccata aggggatcca cccttcacat tctccatctc aaacatccca 420  
gcacaaatgt gtaaccaatg ggcacaaaaa tcatcccatg gtgaacaagc tgagtaatag 480  
atgtcaacgg agtagtc 497

<210> 5147  
<211> 411  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220070f04a1

<400> 5147

gtgatctcac ttggactcag tgtgaaccat gtgctcgttc ttgctacaag caacaagatg 60  
ctatctttga tccatcaaag tctacatcat attccaatat tacatgcaca tctacgcttt 120  
gcaccagct ctctactgct acagggaatg agccgggatg ttcagcctcc acaaaagcat 180  
gcatatacgg catccagtac ggtgacagtt cgttctccgt tggctacttc agccgcgagc 240  
ggctctccgt gaccgccacc gacatcgctg acaacttctt cttcggttgc ggccaaaaca 300  
accagggcct ctttggtggc tccgcgggcc tcatcggcct cggccgccac cccatctcct 360  
tcgtccaaca aaccgccgcc gtatatcgta aaatctcttc ttactgcctc c 411

<210> 5148  
<211> 364  
<212> DNA  
<213> Glycine max



<223> Clone ID: jC-gmf102220070f04d1

<400> 5148

ccaacaaact tttattttaa acccgggccc ggttcccatt ttttttttc ccccttcca 60  
tttgtccaat ggcaagcaac cccccgggtg gggagaaata ttttcccccc cccttttttt 120  
tttgggcccc aaactttttt ttttttaatc cccccctttt gggttccctt ttttttcaat 180  
ggccccgggt cccccccctt tgcaataaag ggacccccct tttttttgaa gcccctaacc 240  
ccataaaaaat ggatttttct ttaaccaccc caaagcattt gttaaattta aaaaactggg 300  
ggcccccagc cccaaaccca ttttttcccc ccccaaaatt aaacaaaacc tttttggttt 360  
ttgg 364

<210> 5149

<211> 428

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220070f05a1

<400> 5149

gttttaaccc atttgttttg ctttatcttt ttcacttttc agatcctttt tcgctcaatt 60  
ctgagcagaa aacttatatc cttgtctgag gttaactttt ttcacggtta atccccctcc 120  
tccctacgga tcgtgtcttt tctttccctc attacattcc tttaaagttc aaaccactcc 180  
tccaaccgca ccctttttct tgtaggacac aacagacaac aaccagagca agaagaacca 240  
gtttttgttt gtgtgtctat ttcagctgcc aaatatggat aggagcgggc aaataccagc 300  
gtttgggaac tgggattacg cgaacgagtt gccaatcact cagtacttcg agagtgcgag 360  
acaagctggg taagtctgta cagttccttc tccggcgaaa gtgaccctta cgtgcgtgca 420  
gatcgaga 428

<210> 5150

<211> 493

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220070f05d1

<400> 5150

agatgcaagt atttatacga gttggcgata ttataaatgt ataatgcaga tacaagggtga 60  
 atgcatccaa gattagagca taaaatttga aacttctcaa gggagaaatc tggctgtaca 120  
 ggacaatgat tcaagttgtc tccctagtgt acattatttt gcttacaagc caagagcacc 180  
 aaggggtgtc ttgccctggc cagcctcaaa gtagaaaatc agcatagcca acatagcaat 240  
 cctagcatgc ttaatctcag ccaatttcag tctctctagc ttgtcggcat ccggaatgta 300  
 aacgccatcc ttgatagctc cagcaaatcc caaagggtca aagaattttc ctccagggtga 360  
 gccttgttca ccagtagagt tgccaaagtt ctgagcagtt tttgaccatg gagtggccca 420  
 ctccactgac tgagaatctg ggttgaagat gtccacccat tttttgcttt aaccacccc 480  
 atttgagca act 493

<210> 5151  
 <211> 363  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220070f06a1

<400> 5151

ctaaaattat agggctaagg ctatcaagtt caaaggcaat ggaatttctc aggtgccctg 60  
 tttctgcatt tttattccca gcgttttgct ttattatttt ctttatcttc tttccttgga 120  
 aagaacaaaa ctatgctaca cacttccctc ctcccttggt cctttccact attatcaaag 180  
 acttaaacaa ccacacaaat attataacct ctccctctcc ctctccctct ccctctcctt 240  
 cactacaacc accacctctc ctccacttg agcttctttc caattttact cctgcaaag 300  
 aaagctacaa taacactact gttttaagta gcactattat gaaatatcca agtttggaga 360  
 aaa 363

<210> 5152  
 <211> 335  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220070f06d1

<400> 5152

actagttggt aatgtctttc taatatacca agagagaacg tatatatata tccatacata 60

aatacacccat ggagccatat atgcaaccaa ccacaaataa aagctgattt ctgaaataca 120  
 atgaacagct ataacctaaa atacagatac tatttctaca tttttcccct tcaacaactt 180  
 ctatctatca tacacctata taatcaaatt attgagacta ttttaaaacc acaaaagctt 240  
 aaagaaaagt gttgcaccac agcagcagtt ggcagagtag aaaaatcgta gcatctaatt 300  
 tttatagcac cacaactagg cttctagagg aattc 335

<210> 5153  
 <211> 438  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220070f07a1  
 <400> 5153

gggaaagtgt ttagaaatca accaaaaata aagcaataaa caaaagagta tgggttctta 60  
 gtcaaattag tagtcatttg ataagtatgg gagacataaa aatttataga aatcacttaa 120  
 ataaaagatg attaaactct cccccccccc cccaaaaaaa aaaaaacaga catgcacttg 180  
 gacatgttga aattttaagg gtgttttata aactggctg aaattccata ctgagctttt 240  
 ttttggtgaa aaatttgaga actgaatttc tagtaagaat tgaatttgga gctttggaaa 300  
 tgatcctcat ttgacatctt gaaagtgtat tgaaggaaat ccggaaagta ttgtcattta 360  
 aaaaatgaat gatgatgtgt tgaagaggct gcagaagaat ataacttagt ccatgaacta 420  
 aatggttata tctttttt 438

<210> 5154  
 <211> 526  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220070f07d1  
 <400> 5154

aaacaatgaa aatccttcat ttattggtgt acatatttgg ctaaagaaga taatagaaca 60  
 tatctctgtg taagcctact cagtaatctc aaatgcaatt tataattatg gaccaggaaa 120  
 gtgagaaata catccaaata aaccatgtta aaaaagaaag aaaccaaatt ctgagctagg 180  
 gaaagctatc ccagcaacaa ttaactctca gtaaatgagg tgattgaaca tggaggcacc 240

cttcaaggct aagtcagatt ggggatatca acattctctg ttgagtcaat ctaaaatcat 300  
ctcaacaacc cataacagca caattataca cgaacacccc gacatgctcc ttcacgccaa 360  
gtacctgcca atctatgggtg ccattgctga tccctgactt aggacaccat gaactcagca 420  
caatagcttc accttctgga cccctttgtc caccacaaac caaaagttgc tctccacaag 480  
ccttgaaagc caacccccaa ccattagaag aatctgctcg gactgg 526

<210> 5155  
<211> 458  
<212> DNA  
<213> Glycine max

<223> unsure at all n. locations  
<223> Clone ID: jC-gmf102220070f08a1

<400> 5155

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tgacttgaat cggtgaatga gatattattg agtttgattc agaaatgaac aaagacgaaa 120  
gcgataggaa cgaaaagaaa gcgcaagata ttaagctttg gggagttttc atcttcggat 180  
taatcggcgc caccgtcact gctttctccc tgtccaggtc gcaggcaaaa ggaggcagct 240  
ctttccgaac agcatttcaa gaagaagcat ggaagaggta caataagcga ttgcaagagg 300  
agtatgaaga ggagatggag aggggtggaac gaataagacg tatgcaaagt gtgtttaata 360  
gagaaagggg taagcttaga agaaactacg agagctggaa ggaaaatggg gccggtgcac 420  
atcatcaaca ttncaaaga gatgattggg attggaag 458

<210> 5156  
<211> 390  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220070f09a1

<400> 5156

gttctagatc gcgagctgcc gccctttttt tttttttttt tttttttttt ttggttttta 60  
cggaaatatg aaattttact tggctaatta aaacgatacc aaaaacaaaa cacaagccaa 120  
gtgaaagtga gaaaaaataa aaatcaaaga gcataatgtc agggatcatt cacaagattg 180

gggagaccct ccatgtggga gggcacaaga aggaggagga gcataagggt gagcaccatg 240  
 ctggagaata caaaggggag caccatggtg aacacagtag tgagtccaaa ggagagcatc 300  
 atggtgaaca caaagctgga gagtaccatg gggagcacia gccagagcac aaagaggtgt 360  
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<210> 5157  
 <211> 261  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220070f10a1  
 <400> 5157

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 ggtgaggctt aggcataata ctacctcttc ttctctctcc gaccagggcc caacacaaaac 120  
 gcaccattgg gctcgatctc tgggcgaccc aatgtcatgg agggatcccc ttacaactac 180  
 atcacgcttc gatcgaccca ccatgggcct tcccccaatg ctcgtattcg acttcttcgt 240  
 catggacgcc attctgcct g 261

<210> 5158  
 <211> 409  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220070f11a1  
 <400> 5158

aaaaaaatc acagaatttt cgcagtccaa gaagacacgc atcccaaacc gttttgattt 60  
 ggaacgtgtc acgctctaaa tttgcatggc atattgtctt taactgagtc aatttcgctt 120  
 aataaaacct ctcttcactc ctctgcttta ccaacccaac cccctgttcc tgtgtgtgtg 180  
 agtgaccgag tgagtttggt tttctcagct gatatatatg gcgcttgatc gctccattat 240  
 aagcaaaacg acgtggtaca gcgtcgatt atggatgatg gtggtgctgg tgagagtgca 300  
 cgggtgcagcc gcgaggccga accggaagga gtgggactca gtcataaagt taccgactga 360  
 accggtggat gctgactcgg atgaagtggg aacacgatgg gcggttctc 409

<210> 5159

<211> 577  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220070f12a1

<400> 5159

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atacaaagaa tttagaagct tggaagttct acgtttatct tcatgtatta ggcttgcgaa 120  
gagtaaaaaa aagtgagtgt gttctgagat acaatgtagc ggtggttgca ggtcatgcca 180  
ttggggcaaa ggctgcaatt cctagaatgt ttccaaatat gtttccactg gttataagtc 240  
agagaaagtc acaaacagaa ggctgattgc agtcatgaaa ttgtctcttg acaagtctgc 300  
ccaaggagaa agaatttctg acataagcaa gaatggcat attgcttctt acagggttaat 360  
gactttgtgt gcttatcaga cattgcttat gttagtgaac aagtgttgat gatggagaaa 420  
acaattctta ggaagcttga atagtactta acagttccaa catcctatgt cttacttggt 480  
ttggtatata aaaggctcca ctccacctgt taaagagtgt accctaggaa tgagcccttt 540  
cgggacaagc acttttgagc actatactgg ttacact 577

<210> 5160  
<211> 482  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220070g01a1

<400> 5160

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cgcgaaactc ttacttacac ccctctctgt ttttctattc acaagggttt tgaaagatgg 120  
cggttgaaaa tcccaggat ggattgaaga agctggaata cttgtcgctg gtgtcgaagg 180  
tgtgcaccga gttggagtcc cacaccggca cggcgacaa ggttcttgcg gagttcatca 240  
ctgagttggg tcgatcatcg gagaatgttg aggaattcga cgagaaattg aaagagaatg 300  
gcgcggagat gccggattac tttgtgcgaa cgctcctcac catcatccac gccattctcc 360  
ctccgaagcc gatggattcg aagaaggaga aagacagtgt caacggcaag accaccaagt 420  
tcaaggtctt ggccatcgcg gacgacaggg acccgccaa ggagcttcaa aaggagttag 480

<210> 5161  
<211> 516  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220070g01d1  
  
<400> 5161

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aactgcattt aaaactaaat gcaacatata acattatcca agacattgca taaagagAAC 120  
atagatgaat tacatattat gcacgacgtt tactcaaacg ccatgaattt ggctcatggt 180  
atctgtcata aagtggttca attcgcctctt gacgcttttcg cttgctcatc tttgtaggat 240  
ctgccacttt gaagtatctt ggagccaatt caacaagcca tttgggggtct atgacagtga 300  
cctcacgcac atattcctta gttgtcatca caagctcatg gtagatgacc cagtctgggt 360  
gtctctggaa cagagctgaa cttggatgga tatacacagg ctggttctca caagggttct 420  
gtaaccttcc tgggggtcct ttctagaagc atggaaaaag aaccctgcag tgatagcctt 480  
cctgactttg gtgaattttt tcccgcactt acaaca 516

<210> 5162  
<211> 605  
<212> DNA  
<213> Glycine max  
  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220070g02a1  
  
<400> 5162

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ctggtatgat gctagaacac aagaataaat tgcttgagat accaggatca aagctgctct 120  
ttgggggtag tcctctagag aaccattcaa ttccacctat ttatgggtgcc attaaaccaa 180  
cagctgtcta tgttcctctc gaggaatta tgaaggataa gaattttgat cttgtaacaa 240  
aagaaatatt tggacccttt caggttatca cggactacaa aaacagtcaa ctatcagttg 300  
tattggatgc tgtggaaaga atgcataacc atttaacggc tgctgtagtt tcaaatgatc 360  
ctttgttttt acaggaagtt gttggcaatt cagtaaatgg tactacttat gctgggtctaa 420

gagcaaggac aaccggagct cctcagaatc attggtttgg tcccgtggc gacgctagag 480  
gtgcaggaat cggaacaccg ganggctata aactngtatg gtctngccac agagaagtta 540  
tatatgattc tggacctgtg ccaaagatgg caaacttctc agtcacttga aaaaagtcct 600  
atcat 605

<210> 5163  
<211> 435  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220070g02d1

<400> 5163

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gttgtgacat tttttacaaa ctcaccatca aaatcgcgct actaataatc caaaaaatgt 120  
cctatcaaat aaccgcttct cttggtgttg tgctaaacaa aataactaata ttagtaatat 180  
aacactgaat agcctataat atatgctcaa aatatggcca aaagcacaaa aagggccatc 240  
ataaacgcac aagtaggttt tatcttaa at gagagattac gtgacagcac atgattatta 300  
tactggcttg atcttgcttc aagatccaca gctatggcag gagaaatata acgtgtattt 360  
gatcggttaa tatgttaagt agagagatta tcctcataac acttagattc ctttcaacca 420  
aaaatcatgt tctca 435

<210> 5164  
<211> 515  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220070g03a1

<400> 5164

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ctattttctc gttctgttgt ctcagcaaaa caaataataa aatcctctcg tagctacctt 120  
caacaactct tggtcatggc gtgtcaccgt tggctctgta tatcaactgtt gctgctgctg 180  
ctgctgagtt tagcttcgca gagttgccac gctctccatt cgttcggggt cgacattcac 240  
caccgtttct ccgatcccggt gaaagagatt ctcggcgttc atgatttacc cgacaaggga 300



actcgacaat actatgttgc tatggccac agagaccgaa tattccggg cgggagactc 360  
gccgccggtt accactcgcc tctcactttt atccccctcca acgagactta tcagattgaa 420  
gcctttggat tcttgcatth tgccaatggt tctgttgga ctccaccatt atcgtttctg 480  
gtggcattgg atactggcag tgactttgtc tggtta 515

<210> 5165  
<211> 456  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220070g03d1  
<400> 5165

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aattatgtat tacaaactgc aagttttcct tgctcacaga ttcttcatat taaaaagaaa 120  
atthtatccat taacaaatat ttaatgcgtg tttgggtatt cgacgaacca acattggtga 180  
aaactgaagt tgcgaaaagc atctccatca ttccttttgc ggtaatatat ggttgaccat 240  
agaatttaaa attgcaattt ttgctaacaa gattaacgga aagtcaaaca tgctttttat 300  
ctcattaaaa cttaatcatt ctcatgcaca agaccaatta tcttgagctc agatttaagc 360  
ttcaccattt tattcttcgg aaaaaacatg gttagaaact tgccaataac accattctcc 420  
atagaacctt tgggcattng gttcaccaaa acaacc 456

<210> 5166  
<211> 554  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmfl02220070g04a1  
<400> 5166

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ctgttaatca ttcaacaaaa gcttctgtgt ccaaaatttc atctccggca tctctgagtt 120  
ccttggtctc aaagtctata tcttaciaag aagtggcttt agcaccacca ggaactgttt 180  
taaagccatt gttgaaaaag gctgacatgg aaaggggttaa tgctggagat gagatatgct 240

gcaatcctgc tgtgacatca ataagtgaag gtagttgcc aagttccata actaatacag 300  
 tttgtcagca tgatgaaaca gaggaactc atgaaaatga acctcaaca gaaagttctg 360  
 gatcggaact tgagaagggt tctgatcagg caaatctac agcagaaaca aatggcagta 420  
 agctttcagc tgcggccaaa cctttcaatc caggaatggt gtccatgtct caccatttaa 480  
 attcagcttc cttcacaagc atgtatgata cagatgtag tcaaggcatg cacgtggaga 540  
 ctgtgcttcc ccct 554

<210> 5167  
 <211> 552  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220070g04d1

<400> 5167

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 aaacttacta tataatagag aataaacaaa tcccgaatgc acttattata tcgacaaaaa 120  
 acaaatgaa ttgaatgacc aaaaattcta ggccatgaag ttataaacta ttaacaatat 180  
 gatgtccaga gcttcggcca gacaaacact cagatgtaga gacaatatcc gttattttatt 240  
 tcataactct attcaacgaa ctgaagcaca aatggactgt tggttgtaca attctgtgac 300  
 tccatttggtg atcttctgcc tgtttttcct cctcttcgag acaactataa acccttcacc 360  
 atctccattc tttttttcag taacacctaa tttctcttgc tcatcactat cactggaatg 420  
 aggcaactgtc ttattctttt-cttcatttcc atacataatg tttatgacag cactgtcttt 480  
 ggctatttca tcagaacaac tttccaagat ctcaattttt ccttcaccat ccttagactc 540  
 atccacagaa tc 552

<210> 5168  
 <211> 614  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220070g05a1

<400> 5168

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cgagggtttaa tgcacacatt tttagggtttt tttatgaaac gacactatta tcatgaggac 120  
gaaggggata ttttaacttt atgctttcat atgctctatg aaataactga tagttttcat 180  
aaagcatggt aacgtagaaa gttacagtaa gcattgtaaa ttaagagatt agtccttagc 240  
ttctggctga ggatataccta ggtagaccta aaaaaaataa ctgataattt tcgggcatgt 300  
gcagatatag gaagaactat aaacgtgtca gcatacaagc tataaagaat tgggctcgcc 360  
aaatcttaca aggtcttggt tatctacatt gtcgatgatcc acctgtgatc catagggacc 420  
tcaaagtga taacatattt gtcaatgggc atcttggaca agtaaaaatt ggtgacctga 480  
gactggctgc aattcttcac gggtcccaat tagcacatag tggttatagga cctcctttgg 540  
ttcaataagt gttgcacact taatttcagt actaagaaac tggttctattt ttattgccaa 600  
taaaattttc tctt 614

<210> 5169  
<211> 468  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070g05d1  
<400> 5169

gaaacagcaa gggctcaatt ccacctcaaa gaatttacat tcccgggaata atgtacagac 60  
gagaactgaa agagaagaag aagaaaagaa aaaagaaaag agaattccca taccaccacc 120  
aattgttgaa catgcaacct agagagacac ccgggtgtca cgagctttgc tttttcacga 180  
aagcaacctg gctacaaaac aaaaccccc aacagggtggc catgtttggc ccgatcaagg 240  
gttctaatacc gacgaggagt gtgcgggttc ggtgggtccca gtcccagcct gtgccatttc 300  
aagcgatttt cggttctcct cgcagggtgca cgtgctgggtg ttgtcgccga aggaagagga 360  
cctgctagtg ctgcaactcg aaacactcgg agttgctaag aatgttgggt tctcttgccc 420  
ggccatgatc accaagatct tctcctcgta tggtttcgca gggtttctg 468

<210> 5170  
<211> 299  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070g06a1

<400> 5170

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ataatggctt agacctgaca gtggcctcat acaagagtaa taggctagag ataataaatc 120  
tctcgcttga tccttgcttg agattgatac ttgtgcaaag ctaaacctcg atacaagatt 180  
ttgagggtcaa acaggcgata aaaaaaatat ctaagcttgc ctaatctcca aaagtgacaa 240  
gacttaaatg aagtgccttat gtgtcttact aggactaatg aatgtagaat cgagttggg 299

<210> 5171

<211> 412

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220070g06d1

<400> 5171

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tttttaaaac ccaattttgg ggggaccccc cccaatttta actaacccat agctaaaacc 120  
tttaaaaggc cccccgcccc aagttgaaaa aagttgttgc ccattcaatt taaaaatacc 180  
cccggaaaaa aaaagttgct gaaatacccc aagggccac caaaaagccc cccatttttg 240  
tttttaaaaa cccccccagg ggggggtccc ttccccccc ggattggggc ctccattttt 300  
cctttgatga acccctaaaa cggtttttcc cacttataaa cccctttttt ggaacgggat 360  
aaactttcgg tggcaatccc cccttattca gggaactgcc cttttcaaag gg 412

<210> 5172

<211> 432

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220070g07a1

<400> 5172

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cgtcgacgac caatccatcg acgacgttat ttcttggaaac gacgacgggt caacgtttat 120  
cgtctggaac cctaccgttt tcgccagaga cttgttccct aaatttttca aacacaataa 180  
tttctctagc ttcttccgcc aactcaacac ttacggattc aggaaagttg tgctgatcg 240

gtgggagttc tcgaacgatt atttccgccg aggcgagaag cggcttcttt gcgaaattca 300  
 gcggcggaag atctcatcgc cggcgccgtc tccgactgcg ccgacgacgg ttacagtggc 360  
 cgatgccgtg accgcgatac cgatcatatc gccgtcgaac tcttgcgagg agcaagtgat 420  
 atcgtcgaac tc 432

<210> 5173  
 <211> 536  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220070g07d1

<400> 5173

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 cataagtga acaacaaaat gttggccaag aaaataaatt tagtagcaga acataaaaat 180  
 aggtgtacat taatcggttt cagagactgg agcaagtttc acgattttat tgctcctgga 240  
 ttcgttctgg ttaagaagaa atcagttgca tgatccaaca gggtaggcat caaatcccat 300  
 ttctccatcc aacaatgtcg actcattttg ctcccttttg accattacac ccattatgtc 360  
 atccaaggtc ccaaaagtat tctgcataaa tccatcttgg gacttcattt gctccaaaat 420  
 gtaggcttca tttggcttca gtcgaatgtc tgaagagaat ttctcaactt cagtgcaccg 480  
 gctgattgat ggggatgctc catttagttg gccaaccaaa gatgatgcat caactc 536

<210> 5174  
 <211> 386  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220070g08a1

<400> 5174

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 ctgggtgccga acaaaggctt tttgggcgag cattcgtctt caccagaaag aggataatgg 120  
 tggctcgtga agacatatat ggtggggagg aagtttgtct tggccaacca gaccctgtgg 180  
 tgtcgcagat tgcacggttg caaatccaac ttacagtaaa ggattaggaa ctgcctactt 240

gccagagcgt agaaatggcc ttcctggcat cttatgctca aaaggacagg gccctagact 300  
agctgatgaa tgaagtcgc aaggtgcatg ataaacttag acttaccgtg gatcatttca 360  
acatttgcta gcaatttagg aacctg 386

<210> 5175  
<211> 404  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmfl02220070g09a1  
<400> 5175

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gggccttccg gcctttcacc ttcacagggt tctgtggcat tcagcgacgc ctacgaccgg 120  
atccccact ctgacgtcat cttggtgaac acgatttccg agatatggaa gcagaggagt 180  
cagaagaaca attcgctctt caatgggaag aagttcaggt atggaggggtg tgttttgcatt 240  
gccaaagatg gatccgacca tgaatgtgaa ccgcatttat gcctccatct aggtttgaca 300  
gattacagga cttttgtggg gacaaattta agtcctttgt gggaaagggtt cctggtttca 360  
tcagaagatg attctgttct ttgtaagcac accttccatt cact 404

<210> 5176  
<211> 541  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220070g10a1  
<400> 5176

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gatcacagtg gtgtggtgcg cgggtggcggg gctactgtgc gccgcggcgg gcgcgtcgtg 180  
gggtggaggag gcggcgaacc cgatacgaat ggtggcgggg gtggaggcgg aggtggttcg 240  
gggtgataggg cagtgccggc gcgcgctgaa gtttgctagg ttcattgagca gggttcgggaa 300  
gagttaccga agcgaggaag agatgagggg gaggtacgag atattctcgc aaaacctcag 360

gttcatccgc tcccacaaca ngaaccgctt gccctacact ctctctgtta atcattttgc 420  
 tgattggact tgggaggagt tcaaaagaca cagactaggc gctgccc aaa attgctctgc 480  
 cactcttaac gggcaccaca agctcactga tgctgttctt cctcccacga aagactggag 540  
 g 541

<210> 5177  
 <211> 580  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220070g11a1

<400> 5177

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 atgctattga cgagtatgct gttggtcagc ttaaggaatt tgagggaaag aagttgggtc 120  
 ctgctactaa ggaaggcctg aaacttgacg agagcgaaga cgaaaagaaa aagaaggaag 180  
 aattgaagga gaaatttgag ggtctctgcc atgtgatcaa ggatgtgttg ggtgacaagg 240  
 tggagaaagt tgtggtgtct gatcgtgttg tggattctcc ttgctgtctc gtgactggtg 300  
 aatatgggtg gacagccaac atggaaagga ttatgaaagc acaggcattg agggacagca 360  
 gcatggctgg atacatgtcg agcaagaaga ccatggagat taaccctgag aaccccatca 420  
 tggatgaact gaggaagcga gctgatgctg acaagaatga caaatctgtg aaggatctcg 480  
 ttctectact ctttgagact gctcttctaa cttctgggtt cagnctgat gatcccaaca 540  
 ctttcngtaa cagggattac aggatgctga agcttggact 580

<210> 5178  
 <211> 581  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220070g12a1

<400> 5178

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 ctgatcatgt gactatgttg atggatgatt tggtgagtct ctcgttgcac agctatgaaa 120

ctgtccgcct gottgctggg aaatctctag tgaagctgat caagagatgg ccatctatga 180  
 tttcaaaatg tggtatcact cttacccata acttgcagga taccaatgcc aaggaatatg 240  
 cagtgttggg gtccctgttca gtccttgcct cacaaacagt actcaagcat ttgacaacgg 300  
 atccaaagtc attctcttca tttatcttgg caattctttc aagttcgcac catgaatcct 360  
 tgaaagctca gaaagcaatt aatgagcttt ttgtgaagta caacattcaa ttttctggag 420  
 tatctagaag ctttttcagg atctcagaca aagaaaatca tactgggtggg ctgggggttct 480  
 cagatttggg ttctcagatt ggctccatga gttttgattc tactgggttg cattggagggt 540  
 ataactngat ggctaataga gtgctgctcc tgctggcttt g 581

<210> 5179  
 <211> 536  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220070h01a1

<400> 5179  
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 tgaaatggtt gcagttggct ttcataacca ctgggttaaat ggcattgatt atatgggcca 120  
 gagctatgcc aaagcgtgca gctatgaact tccagttgct gttgccattg ttatttcggg 180  
 catgtatgag gatgatctgg ataatgctga ggatgttgtg tacactgggc aaggtgggca 240  
 taatctgact ggtgataagc gtcaaattcg ggatcaaaag ttggagcgtg gtaacctggc 300  
 tctcaagaac tgtgctgagc aatgtgtgcc tgtagagtc attcgtgggc acgaatcttc 360  
 aagcagctac actggtaaag tatacacata tgatggcttg tacaggttgt caattattgg 420  
 gcagagaagg gaatatctgg atttacagtc tacaagttta gacttangag gctcgaaggg 480  
 caacctacat taaccacaaa tcaggtatat ttacttatg gacgtgtacc ttaaac 536

<210> 5180  
 <211> 466  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220070h02a1  
 <400> 5180



cagaaagcaa gctcatccta gagtttttaa aatggcagca gcctcctcca tggctctctc 60  
 ttccccatcc ttggctggca aggccgtgaa gctgggcccc tcagcccccg aagtcgggag 120  
 ggtcagcatg aggaagaccg tcaccaagca ggcctcctcc ggaagcccat ggtacggccc 180  
 agaccgcgtc aagtacttgg gccattctc tggcgagccc ccgtcctacc tactggcgca 240  
 gttcccaggt gactacggct gggacactgc tgggctttcg gccgaccag aaaccttcgc 300  
 cagaaaccgt gagctcgaag tgatccactc caggtgggcc atgctcgggg ccttgggctg 360  
 cgtcttcccc gaactgttgt cccgcaacgg ggtcaagttt ggagaagctg tgtgggtcaa 420  
 ggccgggtcc cagatcttca gcgagggtgg gctggactac ttgggc 466

<210> 5181  
 <211> 461  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220070h02d1

<400> 5181

gatacagaca atagattgta ataaaggctg aaaaaatgaa gggtgaaaaa agaaccagg 60  
 aatttctttt agaacaaaaa atagaattgg agcttctatt agtatcaatc acctatggaa 120  
 tctggttaac aaatacactt gaatacatgg agaattgtcc catgtttttg agtgcaacct 180  
 aagtaccctt cttgcttttt ccttcaaata ggaagcacia tctgcttgca acaccatgca 240  
 aagctgggac acagcaccaa ccctcagcat ctcttgacag acctcattgg aggccgtgaa 300  
 cttcgaaacc aaggaaaata tatgaagagc tcgatcatca gtggttggtg aaaccctaag 360  
 gatcctcttt gaaaccacag caatgcctgc agcatgttgc agaaactgtt ctgtcccatc 420  
 agcacaagaa caaagatgag ccaagagaat aatatgagtt c 461

<210> 5182  
 <211> 502  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220070h03a1

<400> 5182

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cacatttctg aaaatagtcc agaagtgcaa gcgaaaattt gtaatcacc aggttgggga 120  
aaacgagcca tttgtgtctg agcttctgac aggccttccc atcactattg cagatcttga 180  
accccatcag atacattcct tctatgaatc tgttggtcac atgattcagg cagagtctga 240  
tgcacagaag agagatgaat atcttcagcg gttgatggag ctcccaaadc agaaatggat 300  
ggaaattatt gggcaggcac atcaaaatgt tgattttttg aaggatcagg atgtaatccg 360  
gacagttctt aatataatgc agacgaatac aagtgttgca acttcttttag ggacatattt 420  
cttgcccaa atctcgttga tcttttttga catgtngaat gtgtacagaa tgtacagtga 480  
gcttatttca nagagtatta ca 502

<210> 5183  
<211> 382  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070h03d1  
<400> 5183

agggcaaggg actgtatttt gtccactaat tcaaagagcc ccaaaaaaaaa gccccatta 60  
gaaataacat aatcctattt ggacaaaaaa tacacccttg atagatcaca tatctcacca 120  
gagaaaggaa ttttagaagg atatcctatg atcagctgaa tggaatttta gaagtaaag 180  
gtgcccctgc ttgcaacctg caggtcttga acaacttcat caaccgaaat ttgaagtata 240  
tccccatcta tatcaacacc cgcctcaaat gcttaaagt caaagtgagt ccatttcccc 300  
aaggagtggg tcatttccca ttctattatt ttatgaggca ccatcccaac catagataac 360  
cacttgttga tctccctctt ca 382

<210> 5184  
<211> 554  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070h04a1  
<400> 5184

tccagtgaag gaaaggcagc gatggaagaa gacttcgaca tccccggcgg cgaggaaatg 60

gatctcggcg aagacgaggt cggcgaggag agggagatcg gctctggcgg cctcaagaag 120  
aagctcctca aggaaggtca aggctgggaa acccccgaag tcggtgacga agtccaagtt 180  
cattacacgg ggactttgct cgacgggact aagttcgatt cgagccgca cagggattct 240  
cccttcagct tcacgctcgg acaagggcaa gtaattaaag gatgggatga aggtattaaa 300  
accatgaaga aaggtgaaaa tgctattttc accatccctc ccgagctagc ttatggtgaa 360  
tctggttccc ctctactat tctcctaata gctacactcc aatttgatgt tgagctgctg 420  
tcatggacta gtgtaaagga catatgcaag gatggcggtat tattaagaa gataattact 480  
gagggggaga aatgggagaa accctaggat cctgatgaag tattggttaa gtatgaagtt 540  
catctagaaa atgg 554

<210> 5185  
<211> 387  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070h04d1  
<400> 5185

ggacccaaac aattccattt tttatagtac ctctcaaaca aatcattata gttcatgggg 60  
atatataatt aagtcaattt tgtaaatatt ccataataaa taccaaatga atgtccatca 120  
aattttccta gggcccaaac catacaggga agatcaacc ccaaaaaaac ggggactaaa 180  
cagattcggg tcccatattg gatgacatct aaatttagtt ggcaaccccg gattcaatac 240  
cgggggtact tcgaagctgg tttattgcta tcaggaacca atctttggca tcttggggat 300  
catatttcca taaaatggcg cctccttttt attattcttt ttcacctttt ccttaaaagt 360  
cctgtactcc aatttgacat ccctggtt 387

<210> 5186  
<211> 449  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070h05a1  
<400> 5186

tgggttttca ccgatcaagc attgcctaata gatcttgtca agagaggagt tgctgttaag 60

gatccatctg ctccccatgg agttcgactt ttgatcgagg actatcctta tgcttctgat 120  
 gggctagaga tatgggatgc tatcaagtct tgggtggaag aatatgtctc attctactac 180  
 aagtcagatg aggaacttca aaaagacccc gagtccaag cttggtggaa agaacttgta 240  
 gaggtgggtc atgggggattt gaaggataag ccatggtggc aaaagatgca aactcgtgaa 300  
 gagttgggtg aagcttccgc taccctcata tggattgctt cagctcttca tgctgctggt 360  
 aactttggac agtatccata tggaggttta atcctgaata ggccaactat tagcaggaga 420  
 ttcatgcctg agaaagggtc tcctgaata 449

<210> 5187  
 <211> 461  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220070h05d1  
 <400> 5187

aatccttaga aaacatgtat caatattttc cactctaca aaatttgaca aaaaacaaaa 60  
 caaaggaaag gagagaagtt ccacgcataa gcatcaatca aatgatcaaa gctaaacatg 120  
 taaaagatca gaaacaatca ataaaaagaa gctaccaaac taccatcaag caagtccagc 180  
 ttccagtcca ccaaattgtat catagagagg ttggtttaga gtctcgggaa gattaaacgc 240  
 aaacatccct cccactatcc cacatgctgc aaacaccgca aacggcaaatt accctcccaa 300  
 aacgaccaca aacggcgcca atatcgctcc catttgcgcc gcttgagtag tacacccgag 360  
 cgcggcgttc ctcaccactg tcggaaacag ctccgcctg taaataaaca gcaaattata 420  
 agtccccgcc atcccaaata ttcccaaac accacacacc a 461

<210> 5188  
 <211> 382  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220070h06a1  
 <400> 5188

atggtataaa tacgcataca ccatgttttt tatctaggga cacgcttaaa ggagttacca 60  
 cggactgtta taatttggtc actactacta gcggctgcac atattgtgat attaccatgaa 120

gaaagtacat acttagccat ctacctttga ggtgtgacat cagatctatg gcttgtgcct 180  
aagacacttt atgcagaggt acttggttaag atggtcgctc cttccaatag agttgcacct 240  
gttataacac ccaacgagct acctgaaagc tgatggctta ttgctcgtgt tccccaaaga 300  
aactagactg aggggttggc aatacaaaac tttgatagat gcatctgtat gtctgtggcg 360  
cacacaggca ctagctggta ag 382

<210> 5189  
<211> 477  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220070h06d1  
<400> 5189

gctatcacia aacgaagaaa ctattattgg aattcattca aattgaagtg cacatgatta 60  
ataagattca accaaactag agaaggccac cacggagcct aaggacaaca tagacataga 120  
aattttgtta tatcatcac attcaaggaa gagaaaatct caatagcaag attcaactga 180  
aactagaaat cgccaccacg gagcctaaga acaaggggaa gcggggattc cttctgaata 240  
ttgtaatcgg cgagagtgcg tccgtcttcg agctgcttcc cagcgaagat aagacgctgc 300  
tgatccggag gaatcccttc cttatctga atcttcgctt tcacgttatc gatcgtatca 360  
gaactctcca cctccagagt aatagttttc ccggtgagcg tcttcacgaa gatctgcac 420  
cctccgcgga gtcgaagcac cagatgaagc gtcgattctt tctgaatatt gtaatcg 477

<210> 5190  
<211> 485  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220070h07a1  
<400> 5190

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actattgaat tggaagctga gttagtagta atttgagaga gagagagaga ctcatccact 120  
tcttccattt ccacgccttc ttcattcaca caacacaaca taacacaaaa agctctccct 180  
agtatctaga gacagaattt ccaacacact cgcttctcag agcgcggtgcc cttcaaacat 240

gatcatcatc cactttcttcc taggacctgt ctcagattct tcatagagga gtactgctgc 300  
 tgatcactgg atctttcaaa tttggaatgg tttgatggga aacatgagtt gcagcttcaa 360  
 ccagactgat tcagttgagt gctgtgaagc tgaaattcag aaggctgatt ctcaggaatc 420  
 tggtcctccc ttgaagaagt canaaactga aattctggcc tctcaaagt agataactgt 480  
 gaaat 485

<210> 5191  
 <211> 584  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220070h07d1

<400> 5191

gacacgaaat ccactgtaat atagatctga ctaattgtcc atgttgtctg taatgaataa 60  
 cagaaacaca aaacctagtc attctaaaca ctgaaatgac taacaatagc ataattatca 120  
 ccaaggcgta caaacgcatg accaaattaa atgtcaatac aggaaatgct aatgcaaatt 180  
 atttggcagc ctcaaataca tccccgtgga tagtataacg tccccatttc ttcgttgat 240  
 catatatctc ccatcttgaa gcaggaaata tatgcttggt cttttcatac caatgccttt 300  
 ctacaacctt cccagcatga gactcatcct tctctatagt ggcatcagca attgttcgta 360  
 catcctcatg cacatcaaaa tgaaaaagcg gtccactttt gcctctagct ttgttcacaa 420  
 ttagctcata gaagctatgt tgctgtaata cacatggaaa caggtaaata agttagcaga 480  
 tatectttgg ttaaaataat gttaacatag cttatacaca cacaacaag atagcgagtt 540  
 gcacacagag tttctgaaat taaaagctaa tacatgagga atga 584

<210> 5192  
 <211> 66  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220070h08a1

<400> 5192

tttacaaata catgaatttg taccctaaaa gacatgcaat atcaaattgg tccccact 60  
 tcccct 66

<210> 5193  
<211> 539  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220070h10a1

<400> 5193

gatcttcttg acatcgactc cattgttgct gccataaagg gttgttccgg cgtaatccac 60  
cgtgcatggt ctaacatcat tgggtcaagtc gaagatcccg agaaacagat attggaaccg 120  
gcgataaaag gaacggttaa tgtgttgaag gcgaccatgg ctgaacgaca ggctagtggg 180  
gctgcgtact aatacaacgg aggatcatgt gctgcaattg ctggagcaga tgactggatt 240  
atcggcgaag agtctaggat ggccaccgga tacagtatgc tctctcgga gtactacaaa 300  
atctcccaac tggcggagaa gtgtgttggt tgggactttg cgaaggagac aggttgtgat 360  
gttgatgat agaccctggc acagcgttgg gccctttgct tcctccaaga atcaattcaa 420  
gcatggctgt gcttgatagt gttctcaaag ggggcaaaga gacctacgag gacttctttt 480  
tgggaacggg ctacttcaaa gacataacat tggcacatat tttgggactt gagaacatt 539

<210> 5194  
<211> 476  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220070h11a1

<400> 5194

accatgtcca ctctttccac tcagaacgtc accgtcacc caaaaacgca gcaacctttg 60  
cagattgcaa agcgcttaga gaaatttcag acaacaatct tctactcaaat gagcttgctt 120  
gccatcaaac atggggccat aaaccttggc caaggctttc ccaactttga tgggtccagaa 180  
tttgtaaagg aagcagcgat tcaggcaatc agggatggga aaaatcagta tgcccggggg 240  
tatggagtgc cagacctgaa cattgccatt gctgagagat ttaagaaaga tactggactt 300  
gtggtagacc ctgaaaagga aattactgtc acatctggat gcacagaagc aattgtgca 360  
actatgatag gattaataaa tcctgggtgat gaggttatta tgtttgctcc tttttatgat 420  
tcttatgagg ccactttgtc catggctggg gcaaaagtaa aaggcatcac tttgcg 476

<210> 5195  
<211> 528  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220070h12a1

<400> 5195

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ctgatcatgt gactatgttg atggatgatt tggtgagtct ctggttgcac agctatgaaa 120  
ctgtccgcct gcttgctggg aaatctctag tgaagctgat caagagatgg ccatctatga 180  
tttcaaaatg tggtatcact cttaccata acttgacaga taccaatgcc aaggaatatg 240  
cagtgttggg gtcctgttca gtccttgcc cacaacagc actcaagcat ttgacaacgg 300  
atccaaagtc attctcttca tttatcttgg caattcttcc aagttcgcat catgaatcct 360  
tgaaagctca gaaagcaatt aatgagcttt ttgtgaagta caacattcaa ttttctggag 420  
tatctagaag cctcttcagg atctcagaca aagaaaatca tactgggtggg ctggggctct 480  
cagatttggc ttctcagact ggctccatga gttctgattc tactggct 528

<210> 5196  
<211> 590  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220071a01a1

<400> 5196

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actagctccc ctgggggctc actgggtccg ttcattgtaa tatttgcttt atggtacaga 180  
accatggctt tggccaagtt gccaccaaac gttcatcag ttccagcagt tttagcgttt 240  
ggagattcca tcgtggaccc aggcaacaac aacaacataa aaacattgat caagtgaac 300  
ttccacctt atggaaagga ttttcaggga ggaaaccaa cgggtcgatt ttgcaatgga 360  
aaaattcctt ctgacttaat agttgaacaa ttgggtatta aggagtattt gcctgcatat 420



ttggatccga atctcaaadc tagtgatctt gttaccggcg tctgctttgc ctccggtgct 480  
tcaggatagc atcctttgac acccaaaaata acgtcagttc tatcggtatc tactcaacta 540  
gacatgttca gggaatacat aagaaagctg aaaggcattg ctggagagag 590

<210> 5197  
<211> 562  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071a01d1

<400> 5197

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ctttaaaggt aaatatttca cacgggaaaa atgtggaacg tctgtgagat ggatcgatgc 120  
ctgtgaacat tgaaatctac aaaaagtacc gaacaatcac accaaaactc gacaaatcaa 180  
aatactcatt gtcttcgttg acatcaacat aactaataat tgatattact tcccgtaggc 240  
aaacttaatc gagctcaaaa caatcgatct atgtactttt caagaacata atttacgagc 300  
tttctgtaaa ctcttctgtg tggatgataa ctatcccaaa agacatattc cgaagcattg 360  
gaacaagtgg catccaaagg gttgcataac actgcaacct ctagtttgcc tgtgccacag 420  
caacctctgt ccataacttt atagccatat ttttggtagt tttcaatgat atcgagcaga 480  
ggggtgtaaa catcaatgta aactatcctg gtatcggaca agttgtgacc gagggaatca 540  
agttcctttg aagtttggaa tt 562

<210> 5198  
<211> 695  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071a02a1

<400> 5198

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aaaaaaaaa aaaaaaaaaa aatttaaaaa attaaaaaaa aaaaaaaaaa aaaaagggga 120  
naaggggaaa aaaaaaagaa gaaaggaatg acataaacia ggatctgaaa actgatccaa 180  
aagatgaata tctgcaatta ttgagggcag ccattaagtg cttgacttac cctgagaaat 240

attttgcaaa agtcttgagg ctggctataa acaagctagg aactgatgaa ggggccctta 300  
 ctagagtggg gacaaccaga gctgagggtg atttgcagcg aattgctgag gaataccaaa 360  
 gaagaaacag cattcctctg gaccgcgcaa tagccagtga cacttctgga gactatcaga 420  
 gcattctcct tgcactgggtt ggacatgagg attaagtttt ctttcttaat ctgttcagtt 480  
 gtcatgggat tgcttgctag gctatttgct tttcctctta tcatgaatgt gatattgcta 540  
 tggatctctg gacagaggaa ttcagtggct tgctgttaac gcttgctatg aggggtataa 600  
 attatcatgc ctgttcagaa taatatgttt tgatgtccaa aattcagcat agcactcaca 660  
 tcttattaag atcaatattg tttagataat aaata 695

<210> 5199  
 <211> 455  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071a02d1  
 <400> 5199

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 taaagatgtg aagtgcctatg tcttgaattt tcgacattca aaacatatta ttctgaaaca 120  
 gcatgataat ttatacccct cataagcagc gttaacagca agccactgaa ttctctgtgc 180  
 cagagatcca tagcaatatc acattcatga taagaggaaa agcaaatagc ctaacaagca 240  
 atcccatgac aactgaacag attaagaaa aaaacttaat cctcatgtcc aaccagtgc 300  
 aggagaatgc tctgatagtc tccagaagtg tcaactggcta ttgcgcgggc cagaggaatg 360  
 ctgtttcttc tttggtattc ctcagcaatt cgctgcaaata caacctcagc tctgggtgtc 420  
 accactctag taagggtccc ttcactcagtt cctag 455

<210> 5200  
 <211> 557  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071a03a1  
 <400> 5200

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tttgctatta tttattgtta ttttttttgg tgttttagag aattgagttg atggggggta 120  
 acaattctaa ggaggataat aacaattgga ggcagaattc atctgtgctg tcaagttcct 180  
 ctgctgtctt ttgggggttca tctctgacc cccaatcagg ttatgggtcac ggggggttacg 240  
 cgtatgagcc acaacagcct tcttatacta cacagcagcc gtattatgcc caaccgccgc 300  
 cgccgccgcc aaactatggc aatgaacctc agcctcatgc tagcggcaga gtggccggcc 360  
 acagaaatga gaagcgggta gacaggaaat actcgagaat cacagattac tacaactcca 420  
 tagatgaggt gactgaggct cttgcacgtg caggccttga gtcttcaaat cttattcttg 480  
 gtattgattt cactaagagc aatgagtggg caggaaagca ttcatttaac agaaaaagtt 540  
 tgcacacat tgggaat 557

<210> 5201  
 <211> 411  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071a03d1  
 <400> 5201

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 aagtccaaac caaataaaac caaataattt aattggtttg gatatttttt tgttgtagca 120  
 ttttttcatc aatagacaca gctgatctaa cgtttgtata caaccagaga aggttaaaaa 180  
 aatcaaagaa ttttagctta cacaacaaaa taattaattc acaacggaag aggccgccta 240  
 gtaaagctta attctggtgt taatggggct tctacagatg ggacacgact gaagatcttg 300  
 tccacattca caacatgtct gatgtccaca tccgaaggcc atgtcttttg aattggtcag 360  
 acatatgggg caaagctgat tgtcatatga ggaacttggg gcaagaggag c 411

<210> 5202  
 <211> 457  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071a04a1  
 <400> 5202

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atgttgcgga ggctttctctc ttctcacctc aaaaccctag ccgccaccgc ttcttcttcc 120  
 actccccgat ctgcttccgc cgccgccaga ttcgccgctc tctctcgctc ctcccgctac 180  
 ttctcaaccc agtccgagga tgctactgcc atcaaaaaga aggttgagga tgtaatgcca 240  
 atcgctactg gtcacgagcg cgaggagctt caggctgagc tccaggggaag gaatattctt 300  
 gaaatagacc atccccgaaag tccattcggc acgaaggaag cacctgctgt tgtcaaattc 360  
 tactatgata aaaggatagt cggatgccca ggaggtgaag gtgaagatga gcatgatgtt 420  
 gtctgggttt ggctggagaa agacaagccc cacgaat 457

<210> 5203  
 <211> 542  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071a04d1

<400> 5203

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 agttgcaaca caacaaggta tagacaaatc aaaatcaaac ataggccaca ggattttgaa 180  
 aggccagagt gtattctaaa caatgtctct ccatctttcc agaatttatt ccagatttaa 240  
 ttgaaggatt gcaatcaatg gtgatcatca tcgccatgcc catcggtgga tccaccaggt 300  
 cctaccactt caagaacaaa atactgtgcg cactctggac attcgtgggg cttgtctttc 360  
 tccagccaaa accagacaac atcatgctca tcttcacctt cacctcctgg gcatccgact 420  
 atccttttat catagtaaga tttgacaaca gcaggtgctt ctttcgtgcc gaatggacct 480  
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 cg 542

<210> 5204  
 <211> 450  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071a05a1

<400> 5204

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 gccttgtttc tgggggtgtct tagaagggtga tgtaactgtg cagggaaaaa cagtatctct 180  
 ataatcgtgc caattgttgt cccaattgtc gttgtgattg tacttttcat tgttggagtc 240  
 tgcttcttac gtaagagggc aagcaagaag tataacactt ttgtccagga ttcaattgtg 300  
 gatgatctta ccgatgtgga gtccttgcaa tttgatttgg ctacaattga agctgccacg 360  
 aatggattct cggatgagaa caagattggc caagggtgat ttggtgtggt ttataagggt 420  
 atcctcctta acagacagga gatagctgtg 450

<210> 5205  
 <211> 474  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071a05d1  
 <400> 5205

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 ttgacagaat tcttttaact attaataattt acaatatata tgcactagga ttgtataaca 120  
 gcaacaccat ggtttgacac atttaaacad atcctggatt ggtcaaagaa aacatgaaaa 180  
 caatccttta gcgaggggtat atgtctgtaa tggatacttc attcacagac catggaattg 240  
 aacaagtgtt agactgatca gagtcaagcc cttggtttag cctgttagga tttcttccgc 300  
 gcagaaaaga tgctggttgt cgtggcattg acaaggtaac tgaataactg ttcagcataa 360  
 gtgcaatggt ggccatcgaa ggtctgtcag atggattttc ctgaacacat aataaaccaa 420  
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<210> 5206  
 <211> 539  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071a06a1  
 <400> 5206

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agttgtcaag atgtacacat cgaggaagaa aattcacaag gataaggatg ctgagccaac 120  
 tgaatttgag gaatcagttg gacaggcatt gcttgatcta gaaaatacca acaatgagct 180  
 gaaaagtgat ctgaaagatt tatacataaa ctgagctgtc caaattgatg tttctggcaa 240  
 ccgaaaggct gtgggttatcc atgtccccta cagactaagg aaaggattcc ggaagattca 300  
 tgtcaggctt gtgagagaac ttgagaaaaa gtttagtgga aaagatgtaa tcttgattgc 360  
 caccaggagg atagtaaggc caccaaagaa aggttctgct gttcagcgcc cccgcaccag 420  
 aacactcact gctgtacatg aggcaatgct ggaagatatt gtattgctg ctgagattgt 480  
 tggaaagcgt gttaggtata aaattgatgg ctccaagatt atgaaggtct ttttggacc 539

<210> 5207  
 <211> 562  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071a06d1  
 <400> 5207

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 agaaaatcca gaattaaagc caacttaaca aaaccagcat ccaccatag taattcagga 180  
 agaaattcaa agctaacaaa tagaacctaa gcctcggtag taggatactc aaacacgaca 240  
 cctttgctg aaagtttctt gtatactgca gcaaaagtct ccaacttgta ctcggtattg 300  
 tttcgctcct tgggggtcaa aaagaccttc ataactttgg aaccatcaat ttataccta 360  
 acacgctttc caacaatctc agcaggcaat acaatatctt ccagcattgc ctcatgtaca 420  
 gcagtgagtg ttctggtgcg ggggcgctga acagcagaac ctttctttgg tggccttact 480  
 atcctcctgg tggcaatcaa gattacatct ttactactaa actttttctc aagttctctc 540  
 acaagcctga catgaatctt tc 562

<210> 5208  
 <211> 637  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071a07a1

<400> 5208

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cccaagcagc agtgacatgc aaccaggtgg tgagcaacct caccatgc atttcttatg 180  
tgctcaatgg tggcaaaacc gtgcctggcc cttgctgcaa tgggatcaag accctcttta 240  
acctcgctca ctccacacca gaccgcaaaa ccgtttgcaa gtgcataaag aacgctgtta 300  
gtgcgttcca ttatggcaag tccaatgtgg accgtgctgc tgctcttctt aagcagtgtg 360  
gggttaacat tccttaccag atcagccctt ccaccgactg taccagagtg cagtgaaggtt 420  
aatgatatat ggagcggtaa ctcgagaaga gaaggatata caatatatag ctagtgtgtg 480  
aataagtggc tggctatacg taggcacac attacattaa tgactggtgg ctgcctatta 540  
ttacatccat caactagtct tgttattgag tcattggaat ttttttattt gaagattcaa 600  
aattatatta agaattataa aattatgttt ttattca 637

<210> 5209

<211> 448

<212> DNA

<213> Glycine max ,

<223> Clone ID: jC-gmfl02220071a07d1

<400> 5209

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aaagaaacac caacaggcaa catgtatgga tacatgactt aaaagggtgt ttaatggaat 120  
tggttgaata aaatacataa attattataa atctttaata ttatttttga ttcttacaaa 180  
taaaaaaat acaataactc aataacaaga ctagttagtg gatgtaataa taagcagcca 240  
ccagtcatta atgtaatgtg tggcctacgt atagccagcc acttattcac aactagcta 300  
tatattgtat atccttctct tctcgagtta ccgctccata tatcattaac ctactgcac 360  
tctggtacag tcggtggaag ggctgatctg gtaaggaatg gtaaccac actgcttagg 420  
aagagcagca gcacggtcca cattggac 448

<210> 5210

<211> 630

<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071a08a1

<400> 5210

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aagctacttt ggatggcaat tgtgtgcttg gtgctgggtg taatttccat tactcccaag 120  
gccaagcag cagtgacatg caaccaggtg gtgagcaacc tcaccccatg catttcttat 180  
gtgctcaatg gtggcaaaac cgtgcctggc ccttgctgca atgggatcaa gaccctcttt 240  
aacctcgctc actccacacc agaccgcaa accgtttgca agtgcataaa gaacgctggt 300  
agtgcgttcc attatggcaa gtccaatgtg gaccgtgctg ctgctcttcc taagcagtgt 360  
ggggttaaca ttccttacca gatcagccct tccaccgact gtaccagagt gcagtgaggt 420  
taatgatata tggagcggta actcgagaag agaaggatat acaatatata gctagtgtgt 480  
gaataagtgg ctggctatac gtacgccaca cattacaatt atgactggcg gctgcttatt 540  
attacattca atcaactagt ctggtattga gttattgatt ttttttattg gaagaatcac 600  
aataatttaa agattatata attatgattt 630

<210> 5211  
<211> 422  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071a08d1

<400> 5211

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tggttgaata aaatacataa attattataa atctttaata ttatttttga ttcttacaaa 180  
taaaaaaat acaataactc attaacaaga ctagttgatg gatgtaataa taagcagcca 240  
ccagtcatta atgtaatgtg tggcctacgt atagccagcc acttattcac aactagcta 300  
tatattgtat atccttctct tctcgagtta ccgtccata tatcattaac ctactgcac 360  
tcttgtagag tcggtggaag ggctgatctg ttaaggaatg ttaacccac actgcttatg 420  
aa 422



<210> 5212  
 <211> 323  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220071a09d1

<400> 5212

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 cgctatgcac tgggattacc accttcaatg tatacaatcc tggaccctaa acataaacta 120  
 atattttattc catatggagc gtagcggttct aacaagggtt gttgcatgta acatacatca 180  
 tccctaaata gtctacacac tcctaaaccc tgactttcaa atctcctaca actgactgca 240  
 attctttata atcttgcaat acactatctt catttcagcc tcacaaaatg tactcatgtg 300  
 ccaacaatta atactggtct ttg 323

<210> 5213  
 <211> 556  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220071a10a1

<400> 5213

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 ggggggtccca cctacccttc acattcatta tcttcttcat cagagtctct ttttaatcct 180  
 cttctctatt ctgcaccatc ccaagtattg tcctttgcct tggttccatt gtttttgtga 240  
 atcttgaggg tcttgtgtgg gcctcttgct gcttaagttc caactagcta gatctacttt 300  
 attctagcta cacaccaatt atatatacat aagatttgga gattctgcac accaattata 360  
 tacatcagaa tctcttatta tatagactca tcttccatct ttttttttct tccatttttc 420  
 aattccattt ctaggtgcta taaaacctgt tatcagatct tgggtgcccc acttccattt 480  
 cttgctgtgt tgntgttccc ctctcataa ggaccattgt ataatacaaa ttcttcattc 540  
 ttcatttgat gacagc 556

<210> 5214  
 <211> 437  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220071a10d1

<400> 5214

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 atgggataaa taaaacgggg aaagtaaata ggtagcctca aacgctcatt tgggtgaatg 180  
 agaatcctat accctttttt ctccaatgca gaagaacctg cctctgccaa tgcttaataa 240  
 gaatactagt cttgacataa tgctaagtgg aaaattagat ctgattagtc caagacttca 300  
 gaaggccaaa tgcttttcca aatggaaatc tcagtctcac tcttaatctt tctgattcct 360  
 ccataaaaac catctgcttc atttccttcc tctctatgat ctcttctact tatagttggt 420  
 ttcccccaac gcgagtc 437

<210> 5215  
 <211> 539  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220071a11a1

<400> 5215

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 gcgtaccaga ccccgatca agattcaggt tccgatccga agacccaac gcgcctctac 120  
 aaccctaca aggatctcga agtccccatt cgcaacctct accagctccc aacctccccg 180  
 gagtacctct tcgtcgagga ggcccgccgc aagcgccgat cctggggcga gaacctcacc 240  
 ttctacaccg gctgcggcta cctctccggc gctgtcggtg gcgccgctc cggcctcgtc 300  
 ggcggcgtta aatccttcga gtccggcgac accgccaagc tccgcgtcaa ccgcgtcctc 360  
 aactcctccg gccacgccgg ccgcgcctgg ggcaaccgcc tcggcgatcat cggcctcctt 420  
 tacgccggca tcgagagcgg gatcgaggca acgagggaca ccgacgacgt ctggaacagc 480  
 gtcgcggcgg gacttcgcac cggcgcgctg tategtgcag cgagaggggt gcgttcggc 539

<210> 5216  
 <211> 446  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071a11d1

<400> 5216

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ccagcattaa agccgtccca attattcatg caagatgttt cgacaaatta cattaaaaag 60
gttagtcatt atcaagctga aaaaaaaatg cataataata aaaccaattg tttgcaacag 120
caacgctgcc acatgctggt ataataatgc ttatacctaa caatcgctca aaattgatag 180
taacccccca aaaaaaggaa gaaaaaaatt aagcgctcac acaaagtttt gttctcatca 240
tataggcacg tagcggttca aagcctgctt cgccgtgaca gcgactccaa ccacgacgcc 300
gccgacggcg cccgttaccg cgcgcgaacg caccctttg gctgcacgat acagcgcgcc 360
ggcgccgagt cccgccgcga cgctgttcca aacgctcgctg gtgtccctcg ttgccttgat 420
cccgttctcg atgccggcgt aaagga 446
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<210> 5217  
 <211> 607  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220071a12a1

<400> 5217

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ccatcttcac cgcatattc ctctccttg caatattatt cactctcaca cccacaagg 120
ccaacggtgc cacgtgtcac cctgaggaag aagcgggcct gttgggcttc aaatccggta 180
tccgatccga cccgtccggc ctgctcagta actggatata gggtagggac tgctgcacat 240
ggaccggagt agaatgccac tataacagca cccgggtcca aagattattc ttaacgggtc 300
aaaaacccga aaccatctta tcgggtacca tctcaccac cctctcaaaa ctcaaactcc 360
tcgatggact ctacctcata aacctcatca acatttcggg tcccttccca aattttcttt 420
tccaacttcc aaatctccaa tttatctatc tagaaaacaa caatctctcg ggtcgaatac 480
ccgataacat cggtaacctt acccgattag atgtactcag tttaactggt aaccgggtta 540
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tcggacccgt accgagttca ataaccaagt ngactcagct cactcagctc aaactcggt 600  
acaattt 607

<210> 5218  
<211> 490  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071a12d1

<400> 5218

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taattattgg aaaacttagc agtaaaagga aattaaacac ttgaaatcat caacaacaaa 120  
gcttactaca cttatgcttt gttgcagggt ggcaaaggag aaccacagag acaatcattt 180  
ccaacaaaag cacttgccg aaacttattc ttgggaagct gaccacaaag atgggttatag 240  
ctaacattca acttctcaag cccaacaaca ctgtttggaa ccttcccaa caccaatta 300  
cgagacaaat ccaaaaactt aaacctctcc ccaaactta acttcccaa atcaaacttc 360  
aacttgttcc ccgaagcca aaaccccacc aaatactcag tactattcac caaccaatt 420  
gcactccctg aaatttcatt ccccgaaaga tcaataaaat catagaaata agtctccgaa 480  
ggcttaaaat 490

<210> 5219  
<211> 612  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220071b01a1

<400> 5219

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ttcttcttct cttttccctt ccttctcggg ccccgaggcc ctctcttcaa tgattccgta 180  
caatgccata acacaaggat ctgaaaactg atccaaaaga tgaatatctg caattattga 240  
gggcagccat taagtgttg acttaccctg agaaatattt tgcaaaagtc ttgaggctgg 300

ctataaacia gctaggaact gatgaagggg cccttactag agtggtgaca accagagctg 360  
 aggttgattt gcagcgaatt gctgaggaat accaaagaag aaacagcatt cctctggacc 420  
 gcgcaatagc cagtgcact tctggagact atcagagcat tctccttgca ctgggttgac 480  
 atgaggatta agttctcttt cttaatctgt tcagttgtca tgggattgct tgtaagcta 540  
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 atggcttgct gt 612

<210> 5220  
 <211> 558  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071b01d1

<400> 5220

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 taaagatgtg aagtgtatg tcttgaattt tcgacattca aaacatatta ttctgaaaca 120  
 gcatgataat ttatacccct cataagcagc gttaacagca agccactgaa ttcctctgtc 180  
 cagagatcca tagcaatatc acattcatga taagaggaaa agcaaatagc ctaacaagca 240  
 atcccatgac aactgaacag attaagaaa aaaacttaat cctcatgtcc aaccagtgc 300  
 aggagaatgc tctgatagtc tccagaagtg tctactggcta ttgctcggtc cagaggaatg 360  
 ctgtttcttc ttgtgtattc ctcagcaatt cgctgcaaat caacctcagc tctggttgct 420  
 accactctag taagggtccc ttcacagtt cctagcttgt ttatagccag cctcaagact 480  
 tttgcaaaat attttccagg gtaagtcaag cacttaatgg ctgccctcat atatgcagat 540  
 attcatcttt tgatcagt 558

<210> 5221  
 <211> 651  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220071b02a1

<400> 5221

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nnntnnnnnt nnnnnnntn nnnccgnntt tcnaaacttg gcaagagtgg tggcactcca 120  
 acagaaccaa ctatctttct ctaccttagc ttctctctt tctgacttca gtggaaccag 180  
 acttcaaact caacttcagt tcaagagaaa gcaatgccat ccaaaagggg ctttctacgt 240  
 ctccgcatcg agcaccaaga aaatcctaata aatgggaggc accagggttta ttggtgtggt 300  
 tttgtctagg ctccctgtca aagaggggtca ccagggtgact ttattcaca gaggtaaagc 360  
 gcctgtcact caacagttgc cagggtgaatc agacagtgat tatgctgatt tttcttccaa 420  
 gatcttgcatt ttgaaaggag acaggaagga cttcgacttt gtaaaatcca gtctctcagc 480  
 agagggattt gatgttgatt atgacatata tggacgcgag gcagatgaag ttgaacccat 540  
 actggatgct ctgcctaatac tggagcagtt tatttactgc tcttctgccc gtgtctatct 600  
 caaatctgat ctattacctc acgcagagac tgatgcagct gacctaaga g 651

<210> 5222  
 <211> 527  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071b02d1

<400> 5222

gaacgaaaag ctcatgaata ttccacgact tcataatgta gcaaattccga acagcttttc 60  
 taaatacaag tgaaatactt aaaattgaaa tagaaaagtt tatacgctaa caagactctt 120  
 gccagaatt atgtcatctg ttgagaaatc agcctctttc cgatatgttc ctctacccaa 180  
 gtccagggtg tacgagtctg ctagaccctc tacaagtcca aattcagggt ccaatccaag 240  
 cacgtctttt gctttctcaa ctgatgcaa gaaatgctgg tcacggaatg gaaatgattt 300  
 ctttttccca aaatcaaaat ctttaggggt gtagtgaatg atctctggct ctgggaaccc 360  
 accagcctta gcacatgctc ttgctaatac atcaaagtgt acatacttat ctcccagat 420  
 gttgaatact tccttgctgg ctttctcatt accaagaacc tggataaaaag cttttgccaa 480  
 atccttaaca tgaccaagtt gggttatctg tattcctgag ccgggga 527

<210> 5223  
 <211> 631  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071b03a1

<400> 5223

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gtactgtgca catcacaaga agaacaaaga tgggtttttg aaccatcaca tgataaaaga 120  
gagagaaaca aaaaaagaaa tagggatatt ggagaaaaac aagaagtagc tgcgcaagtg 180  
gaagaagaag aagatgaagg aggagaatga atgaggtgag gcgtgttggt attcttgttg 240  
ttgttgctga aatgggtctg ttgaacacaa gtgcatgtat ttgaccacta gtgtgttaaa 300  
gctcagatct ttgtcttttg ttctcccacc tggatatttg agtccttcct taactgaaac 360  
ccattttggt ggtgtttttt tttgggggtat tgctgaattt ttcttgtacc aacttgttgg 420  
ggttgattta gatgaaggcc gtgcccctac cctatcagga atttagaggg aacgngtgc 480  
tagattttgc ttctggtgct gctgctgctg ttccagattc gttgctactt ccacagcang 540  
agcaatttct gcaaggtgga acccccaaag ggaaaacttt tgctatgtgg gcattgaccc 600  
ttttctgttt tgaccggata ggaaaacagc a 631

<210> 5224

<211> 519

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220071b03d1

<400> 5224

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aagaaaagcc cataaattta ggcaattaaa acaggacaaa atgcataaat agaattgctca 120  
tgtttataat aatacacttc atatcagggc tcataaattg ccattgctaa ttaatattgtt 180  
cacttcctta actgaaaata ataaatccta aaaacagaca attagcatag aaccatagcc 240  
aaggcaaatt caagcaagaa agatcaatag aagcggtaag ttatgtagca ccttcgaata 300  
tagaattaat tggtcgttca aaggtgcaga atggctctgc ttagcatctc caagttgaaa 360  
ctgagatgag atccttcctt tgccagcaaa gaacaaggga agactgcctc ttctcaacat 420  
ggaacccctt gctaggagtc ctctgcacca aacactcagc ctgggattct gtaaagttac 480

taaatgtcaa tggtgaaaac ccagatgaca agagaaggt

519

<210> 5225  
<211> 551  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071b04a1

<400> 5225

cctcttaaaa aatgaaaatt ttagaatatt cgctttgcc a ctgaaacttt attgtagatg 60  
tagtccaaat gaaagatttg gaggttttgt ttgttccaat agtacatttg tctctaatacc 120  
cgtacgttta aaacctctca aagaaaaaat atcgttgttg ctaaatatctt ttttatcttg 180  
ttttgtttgt gttggatcga cagtatctga atgaagctag ttggaattgg agattgatga 240  
agataatcat gacagtgtgt catgtgtacg acaaggagca aaactatggt gccttcgacg 300  
aactcgcccc tgaagattca cgtccaatta catttttgaa ggaaaccatg cctgattatg 360  
cttaattagg ttcaagctgg cttttttctc atatgaaatt ttttatgtat caaattacgt 420  
tcgtatggca ttcattttct ttttacattt tcgatcttgc ttagtaatat agttctatct 480  
ctcatatcat gtattacgag aaaattgctt gctgctctca aagtcacgta tagagtaatt 540  
aattatatta c 551

<210> 5226  
<211> 352  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071b04d1

<400> 5226

ctatggagtt tttctgggtt tattttttac ctttttttct tctatctcct tattccttta 60  
tcttaacttt ttgcgcccac aacacccgcc gacacggccc aaaacaaaaa accccccacc 120  
cgtcaaacca aaaccccccc gcgcaaaaaa cccaccata cctcattcac acaaaaaaac 180  
cccaccgagg gaaccccccc cacaaaaccc cccaccggga aaaaaaaaaa aaccccccca 240  
cccccaaccc cctagaccac ccccccttt ctctccctc cccccaaaaa aaaaaacaat 300  
tctttcacca aaacacgggg cgaaggga aaataaat accccccccc cc 352



<210> 5227  
<211> 678  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071b05a1

<400> 5227

tgtcttgctc ggtcgatacg aatcantnan ccnttnnnnn nntnnnnncnn nnnnnnnnnn 60  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnntttnnn nntttttntt tttttttttt 120  
tttttggttt ttggtntttt tttttttttt tgtttttttg ttcattgagc agatgtcagg 180  
tctgaagcat ctagtacatg gagcaaagca gcatcacaat gtgaaaaatg tatatgtatg 240  
gcatgcacta gctggttatt ggggtggagt gaagccagca gcaaccggca tggaacatta 300  
tgacactgcc ttggcatatc cagtgcagtc accaggcgtg ctaggaaacc aaccagacat 360  
tgtcatggac agcttggttg tacatggcct tggcctagtg cacccaaaga aggttttcaa 420  
tttctacaac gagctccatg cttacttagc ttcttggtga gtagatggag tgaagggtga 480  
tgtgcagaac attattgaga cccttggtgc gggacatggt ggccgagtgt cacttactcg 540  
cagctatcat cacgcgcttg aggtttccat tgctagcaat tttactgata acggatgcat 600  
tgcggtgatg tgcacaaca ctgatgggac ttatagtgt aagcagactt gtattgtgag 660  
agcttntctga tgatttta 678

<210> 5228  
<211> 363  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071b05d1

<400> 5228

atccccaaaa acagatggga actttttatt taaagaaaca aaccttggtc cctcctcggg 60  
gagaaaacaa aattctcttt ttatccctcc aattggagcc ctaccaccag tttaaaccaa 120  
attacctgct ccacaaaag ggcttcccca ccccatgact actacaacat gccttggtta 180  
gcttttagga tcaacaaccc tttttttccc ctacatgaaa ctaaaactgg ggggggttaa 240  
aaaaacctcc cccctttttt ttgcttggc tccaacaatt cctcaaggg ttaattacaa 300

caaaaccctt tttctgatac aacaatgctt taaacaccaa gttttaaaaa gggctcaaac 360  
 ttg 363

<210> 5229  
 <211> 641  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220071b06a1

<400> 5229  
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 ctcgaggtct ctctaatac tttatcattt ttcaaaaacc ctaaccgcgc cgcggtgtca 120  
 cttgtcatcc ctctctcttc ttcttcttct tctttatcgt ggccgccatg gattccgagg 180  
 tgcagcaatc gcaagtcgcc gccatcctcg gcgcggatcc ctcccccttc gagacgttga 240  
 tctcgcacct catgtcctcc tccaacgagc aacgctccca cgcgagggcc ctgtttaacc 300  
 tctgcaagca aaccgatccc gatagcctct ccttgaagct cgcgcaccta ctccactcct 360  
 cgccgcacga ggaggcgcgt gccatgtccg ccatgtcctc ccggaaacag ctacgcgcgc 420  
 acgactccta cctctggccg cgctctctcc ctacacgcga gtcttgcttc aaatcgctcc 480  
 ttctctcttc gattcagaag gagaacatca aatccatctc caagaagctc tgcgacacca 540  
 tctacgaact cgctacggt attttaccgc acaacgctg gccggagctt cttcctttca 600  
 tgttccagtg tgtttcctcc gattcccta agcttcagga a 641

<210> 5230  
 <211> 490  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071b06d1  
 <400> 5230

gtctgcaaac ttaataaata aatagcatta aaatttcata tggtaaacct tcatgtgtgc 60  
 tgataaggaa ataaaaccaa tacaataggc caaaactgca agaattgccc cacagacaac 120  
 cctatattct cacgcaatat ggtaagaaaa aacaattgag gaatagaacg agaagctccc 180

acgccacaat tccctaacct cctcttttgg actcaatcgc actattaaca ctcataatat 240  
acacattcta gagaaagttc cctttccaat cacaattgac tctgcattct caaaactgat 300  
atagaacacc atgcaagaat gaatgatgga aaccatctta tggcaaaaag aatgggtaca 360  
aatatagaga ccaccaaact ggaaaaagct tgttcccaaa aagagcaaga caccaactgc 420  
caagccagat gctatgaaga aatgaaggat ttgcagcaaa agcatgacaa ctatgtagaa 480  
aggatagatt 490

<210> 5231  
<211> 470  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071b07a1

<400> 5231

gcaggcaggt aagacagttt tggaatttca agctatggag cacaacgcta gcgttgtcct 60  
ggcttatgct cacttacgag accggactgc gcataagttt gttgatgagc tatttataaa 120  
gagacgagat ccattcccct cttactctgc ttccttcgta gattgaaaga taatatacct 180  
gcatggccac caagcggatg ctaagagaac tcacggacct ctggaaagac cccttaacct 240  
attgcagatc cggttccgta tcggaacata tgaaccattg ggcagcaact aaaatggatc 300  
cccatatag cccttgtgga gtgggtgtat gtctagctag ctattaatat acctccacat 360  
gatccatgca agccacccaa ggtattgacc taatgatgcc caagacaatg actactattc 420  
tgaacttgat tacatatact tgacgaatat tgaacctcat tgtgtctata 470

<210> 5232  
<211> 334  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071b07d1

<400> 5232

agaccataca aagacagcta acgcatacat acccggacaa cacgctcaca tagccggcgg 60  
ccgccctttt ttttttttta tttttttttt tttttttttt tttttttttt ttttaatttt 120  
ctttttatgg gccatttttg ttttttttat cattttaaat ccattttatat aattaacaaa 180

aaaaaataaa aacaaaaaaa aaaccaatat aaaaaaaaaa aaaaatccaa aaaaaatata 240  
 caaacaata aacaaatcaa caaactaaaa aaacacaaaa caaaaacaaa aaccttacia 300  
 aaaacaaaaa aaccacaaac aacaacaaaa acaa 334

<210> 5233  
 <211> 605  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220071b08a1

<400> 5233

gctatctctt gtgtcgattg atcagtattc cgtagnnnnn ntntnnncngc anntnnncn 60  
 nnnnnnnnnn nnnnnntnnn nnnnnntnn nnttttnnt tttttnnnt ttttttggtt 120  
 tttactggcc caatggtnat aattgcattt ctgcatcg cacacctaata tcttactggg 180  
 gaggatcagc ttcaggggaa gaagacgtcc aaacttccaa gggttcgcct atggacattt 240  
 cctgtgcttg tgaagggacc atttgggggtt gtttctgcca cagagcttat tgggattgtc 300  
 ctggttttgt tgtatgttat ctgggctctc tatgcttaca ctgtgagggc gcttgatttt 360  
 atctctgaat ttgatgtgtc gtcctttaga gacaagagca taatcatgtt caaagttatg 420  
 ggacttcgca cgggcgcaat tgggttaatg tggttgactt tctatattat ccagtttca 480  
 aggggatctg ttcttctccg ctatatagat atcccttttg aacacgccac angatatcat 540  
 gtatggctgg gacatcttac aatggtgatt tttactgtcc acggactcct ctatgttgct 600  
 gcatg 605

<210> 5234  
 <211> 509  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220071b08d1

<400> 5234

aaatatacaa ggaagctaaa attgcatata aaatatgtct agtgataatg tatatattca 60  
 cataaggagt aaaattatat catcccgctt agaattagaa cccttctaag gactataggc 120

tattatagca ccaatgctac aaagggctct agaatttgat tactgcaata tacaatacac 180  
attatatata tgcttttttt tagtgaatgc atgtcttcca tcttcctttt ggggaactag 240  
agatcaaagc tgtgactgtg gaaatggaag atgggatgat ggcgttgtct tgtcactgtg 300  
tgtgacctga tttcttcagc aacacttgct tgaagtgttg aagggccaca aactatgata 360  
cccacatcaa caaggcccca tttctctgac attgattcat aaatttcttt aaagtctggc 420  
ctggaacat aacgaatgac agttgactta gcaatactaa cttgacttgg agcctcgnga 480  
gtcaaagagc cattctgatg aatcttctc 509

<210> 5235  
<211> 623  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071b09a1

<400> 5235

gctcggcatg tgcgaccgat cagtatacag tgaatgattc cncgtgacaa gccacggagc 60  
tnggtattac gttggagcga ggagctggtt ttgaccattt ttgcagaata tggcacagaa 120  
aattgagact tgggggagaa aaaattgaag gaaatgagaa tactagaaaa tgtcgaattg 180  
actgcagaat ttgcagatat actggttaag tccaaagagg ccattgatat tcctagttag 240  
gagcagcaaa gttctgaaca agcagaagca gaagacgaaa aagatgatga tgaagtggaa 300  
gcagttgcta aaaagaatgg aacagatgaa agttccattg aggatgagaa agaagagttg 360  
cctgagccag taccagaacc accaaaattg gttcgtatgg caaatttgtg tgttgtgggt 420  
ggtcatgcag tgaatggggt tgcagagata catagtgaat ttgtaaaaga tgatgttttc 480  
aatgcatttt ataagttgtg gcccgagaag ttccaaaaca aaacaaatgg tgtgacacca 540  
aggagatgga tcaggttctg caatccagat ctgagtaaaa tataaccgag tggataggta 600  
ctgaggatcg ggtcctaaat act 623

<210> 5236  
<211> 236  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071b09d1

<400> 5236

ggattattct ttttgtctat ttctttttta caaacccaaa cccattgggt tatattcttt 60  
aaaagaaaag gtttcaactca acccccagcg aacgcccata aacgattttc tacacaaaaa 120  
cggaagaaat tttggccatt cgaccccccc aaaaaggggg ctcttcccca aaattttatt 180  
cttatctgtg gcacggaaaa ataactctaa acgcgaaccc aaaaaaccag ggggcc 236

<210> 5237

<211> 600

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220071b10a1

<400> 5237

gattaaatgc tcttgctgga aaatctatga agtctggttc tgctgttgga ccttggaact 60  
acaccaatgc tgaatcgta atacgataca cagtcagaaa gaagtacacc attcatgggt 120  
gggaacttgg caatgaattg tgtggaagtg gaattggagc aagtgttgca gcagatcaat 180  
atgcttctga tgttgctgct ttaagaaaca tagttgaaaa tgcataataga gggattgaac 240  
ctaagccact agtcattgca cctggagggt tctttgactc ggattgggtc aaggaattta 300  
taagcaaadc tggtaaactc gcagacgtga tcaccacca catttataac cttggggccag 360  
gagttgatga ccacctaact gaaaaaattc ttgacccttc ctatctggat ggagaggcta 420  
acacattcag cagcctcaaa ggtatacttc aaagttcatc aacctcagta aaatcatggg 480  
ttggtgaggc aggaggggct tacaatagtg gccatcatct tgtgtctgat gcanttgtct 540  
acagcttctg gtatttggac cagcttggca tgtcagctgg ttatgacacc agaacatact 600

<210> 5238

<211> 481

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220071b10d1

<400> 5238

aattgaaaac agaattgtcc tgtattctat tatcgcttat tttatcaacc accaagtga 60

accaattttc agttttcacct agtgccactg agctagctta gctgcaggcc gaaagaagaa 120  
 catttggtat atgagcaaat acaatagata gaggaccaac tattattggc tttcttgagt 180  
 ttacatatag aggctctaaa ggaggaattt caccagctga gtttacctt aacatttttc 240  
 catttagcaa catagtttgg ctatgtaaatt tctgtctgg tgcagttaaa tgggtactctc 300  
 ttctggctgg ttcacccact ctacggtatg gtaacttggt aaattttaag gccacattga 360  
 cttgaacagt ggtgctgttg tccaagttga gcactagtat tgtgatccct ttggattcct 420  
 ttgcacaatg tgcataagtt cttatcttct ttggcccata gaagggtggt aagaggacac 480  
 g 481

<210> 5239  
 <211> 555  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071b11a1

<400> 5239

ctctcccca caccctctc cgaaccttcc ccaaaaaaac cccccccaa aagaacctcc 60  
 accaaagacc ggcacacgaa ggtcgacggt cgcggtcgtc gaattcgaat gccggctctc 120  
 tgcgcgcta ggggtgtcca gtcacgcgt gagctgggac acaagtctga cggcgagacc 180  
 atcgagtggc tctccaaca ggcggagcca tccgtcattg ctgccaccgg caccggcact 240  
 atccccgcta acttcacctc cctcaacatc tccctccgca gctccggctc atccatgtcc 300  
 gttccctccc aactacgatc cagctacttc cacaactcaa acttctccct ccaacctaga 360  
 agaagcctat tctagaaaa caccaacact ccttcacaaa caacaacact ccttcatttc 420  
 caatccaaca acaacaacgc catcttccaa cccaagcacg aattgcgca atcttcatca 480  
 ctagacttgt cctcagagaa caacaacgaa gaggggtatt ttggaagaat aagaagaccc 540  
 ttggagcaag accta 555

<210> 5240  
 <211> 447  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071b11d1

<400> 5240

ggtatggaag tgaatcgttt tctttctctt ctcaacataa aaagcataaa attaattaca 60  
aatcaaaagg ctttcgggaa aaaaaaaga gaagaaaaga aaagccaatt gcacaaacaa 120  
tgatgataag atatcgctc gtgaaataaa gccaaataat atccaactgt taaatagggt 180  
catatatctc tcaagcccta aaaaaaaac ctctcttctc tcttcttcca tcatccacca 240  
cccaccctt cccaacatat taaccacacc aaattaagaa ataaaaaaa atttctcttt 300  
tcatcaaaat aaacaaaact cagttccgta gggaaaataa taatcaaacc ttacgtcatg 360  
acgttgtgtt aaaacaccaa actactacac catgtggaat caatcatcga agaacacgtt 420  
gattgaataa ttcgttgata attcatt 447

<210> 5241

<211> 533

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220071b12a1

<400> 5241

gcgttttagc tctaagctct ctcatctcac taaccacac aacaccgccg cgccgtcaact 60  
cctgcgaggt tgccgcggcg tcgtttgacg gtggcacctg ggtcctaacc atctcctctc 120  
taaagcagag ttgaatttct ctgggggact cgccgtccct gtctcaatct cgcacatttg 180  
tcgtcgccgt caccgtcacg gaggatgctg gaacagcgtc taatggcgtc cctttctcaa 240  
tctcacaata tggcactccc tttctaaacg cagcggtttg ctgctcttcg tccggcaagg 300  
taagtgatga tggcgagact ggctcctcct ttcagtatct ttagacaatc ccattactgg 360  
cgcccacttc tctcttctca caacgccaaa cgcaccctaa cagctgctac taacttctcc 420  
atcacctcat tagctcgaac gcccaaatca cgagacgaag gaacaaccac catcgттааg 480  
ctttcgagca aagccagaag aaaagccttc tatgagtctc cagaaggagt ctt 533

<210> 5242

<211> 409

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220071b12d1



<400> 5242

aaaactgaag gggccaaaat tggatgaatga atcctggcca tacatccatg tctggaacct 60  
aagggcccaa ataatcatca ctaaccccaa atttatcttc aggaaaagtt ttttagccca 120  
agctgcccaa caaggctatt ctattttggg tccatagggg ggttccagag gcaaactaaa 180  
gggtaggtaa agctaaattg gaccagttt cgaccctggg aacaatcagc tcctaaaaaa 240  
acttaatgcc ccttgacaaa agttcttgag caaatccat gggacaaatt agcttcccca 300  
ataagaaact cccccaagcc atttgacca tgctggtaaa attttacttt aaagcattat 360  
ttctgaaaac cgggagcaat atcagctatt aaataaaatt taaagattt 409

<210> 5243

<211> 590

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220071c01a1

<400> 5243

tgctcatcgt gggcgctcag atcgaaanacc gatganngat anacccaaaan agcaaaaaaa 60  
taaaaaaaag aaaggagaag gangatggag attgaggagt ttatactac ctattaggat 120  
tagttctcgc tttgggctcc cctccaacg gcttcacgg taaacatttc ttcggcctca 180  
aggacatccc ttcacctcc tacgactaca gctacttct ctaccaatgg gccttcgcca 240  
tcgccgccgc cggcatcacc agcggaagca tcgccgaacg cacacagttc gtggcctatc 300  
tcactactc ctcttctc accggcttcg tctatccgt ggtctccac tggttctgg 360  
cccagacgg ctgggcctct gcctttaaga tcaccgaccg gctattttcc accggcgtaa 420  
tagacttcgc cggttccggc gtagtcaca tggtcggcg aatagccggc ctatggggag 480  
cgctgatcga aagcccaaga atgggacgtt tcgatcatgc aagacgagct gtggccttgc 540  
gaggccacag cgcgtcctta gtagtcctgg gaaccttctt gctntggttc 590

<210> 5244

<211> 546

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220071c01d1

<400> 5244

ataaaaaacta cttccatata ttacattag acataatgaa aaagtttaac ataaaagtct 60  
caaattaagg aaaagaaaaa aaaactatat gcctcacggc caaacagtag tatttctact 120  
atataccaat cttcttctt cttttttggt gaaaactaca aaaataaatc ccacaaattt 180  
ccattttcca cagccatctg tcatttccag gaccaacatg ccttagtcaa caaccacccc 240  
ccacagaaac gtacgcatct tccaccagaa tctttaactt ccagcatcca ccaatgcacg 300  
accaatgaca attacaaatc aaaatcccta attgcccac atcataaaaa gaaaaatcta 360  
cgaaaaaaga agaccaaga caaataaaaa aaaaagaagt aaaaagtcag gagtatcaac 420  
cggagttgga tctaacagaa gtaacaagta accaaggttt gaatccttac aaggaatatg 480  
tatccaaatt taatgtttga ctaatgagac atgcatatgg gaaaaaaga tcattcatca 540  
gtggtg 546

<210> 5245

<211> 557

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220071c02a1

<400> 5245

gctctacatg ctgactgcat cgcacgagc gaangataan ncnnaaaanc tanaaanaa 60  
aanaaaaaaa aaacttatgc atgttcactt tgtggcttat cgtaacagtg atcctcaact 120  
aggagacttg agtgagagcg agttcttgta tgagcagggtt aaatcaatta aaaagattgc 180  
agagtatgtg actcaactga gattagttgg acagggtcat ggtgtgtggc actttgatca 240  
aaggcttctt catgatgaag atctataatc tttgaacagc ctctgttttc tatacatatg 300  
gccctatgtg aagttatcac cgtgtcgttc tgaccgtagt aatagtgaat aagtgtgttg 360  
ctctgtttgt agcaatagtg aatagtgaat aagtgttctt ctctaggtg ataaaaatgt 420  
agggaaacttt gtgcttgat tatagctgat ggtagaatgg tagcagtagt attattatgt 480  
gcaatctcat atatgagggt accatgtaat catatgatta gaaattacat atgacgtccg 540  
ggtaagaaaa ctatata 557

<210> 5246  
<211> 479  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071c02d1

<400> 5246

aaccgaacgt ttttttttat ttctaataaa atgatggggt ggtacaaaca tatatgagat 60  
tgcacataat aataactacta ctaccattct accaacaact ataatacaag gacaaagtgc 120  
cctacatttt tatcacctaa gagaggaaca cttattcact attcactatt gctacaaaca 180  
gaacaacaca cttattcact attactacaa acagaacaac acggtgataa cttcacatag 240  
gaccatatgt atagaaaaca gaggctgttc aaagattata gatcttcac atgaagaagc 300  
ctttgatcaa agtgccacac accatgaccc ttccaacta atctcagttg agacacatac 360  
tgtgcaatgt ttttaattga tttaacctgc tcatacaaga actcgctctc aatgaagtct 420  
gctagttgag gatcattgtt acgatctgcc aactgtgaa catgcaaaag tttctccta 479

<210> 5247  
<211> 563  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071c03a1

<400> 5247

gatgcatatg gatcttggag cataaccact gctgctgaac gaagcaaatt actgaggaaa 60  
tggtatgatt tgctaattgt acataaagaa gaacttgcac agcttataac cttggagcag 120  
gggaaacctc ttaaagagtc tgtgggtgag atagtctatg gggctggctt tattgagttt 180  
gcagctgagg aggcaaaacg tatatatggg gatatagttc ctgcacctt ttctgatcgg 240  
cgattatttg ttctaaagca gcctgtaggg gttgtaggtg caattacacc ttggaacttt 300  
ccccttgcta tgattactcg aaagggttggc ccagcccttg catgtggctg tacagtggctc 360  
ataaagccct ctgaacttac acctctcact gcttttagctg cagtgggaact ctccattcaa 420  
gctggaatac caccgggtgt cgtgaacgtg gtaatgggaa atgctcctga tattggggac 480  
gctttacttg caagtcacac ggtaaggaag atcacattca caggctcgac agcagttggg 540

aagaaattga tggctgggtc agc

563

<210> 5248  
<211> 465  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071c03d1

<400> 5248

actaacctcg tacctttcac agtgcatttt ttaatggggt aaaaatctgg gaaaaataaa 60  
gagaatgaaa aaggaaagca aaaagaacca aacagaaaaa tgaggaggcc ctttgcaagc 120  
cagcacttat ttgtatacaa cacgggagca gctatatgca tattcttcaa ctaagaaacg 180  
caaggtgact cctccctatt ttgcttggca ctggctcggg cttcattctt tggatcatgtt 240  
tccgaagcac acatacttga tctctaaaga ttcattccatc ccatatttgg agccttctct 300  
tccaaggcca gactgtttaa aaccaccaa tggagccacc tcagttgaaa ttactccttt 360  
attaacaccc actaatccat attcaagagc cttagaaaca cgccatgatc agtggatact 420  
gtttgtaaat acatatgaac ccaaactgc gttagtgtca ttagc 465

<210> 5249  
<211> 552  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071c04a1

<400> 5249

gcaagatctt ggtgaatgca tgttggctgg tcaacaaccc tgcacactgg aagaagccag 60  
aggagtccg gcctgagagg ttcttcgagg aggagtgcgt tgttgaagcc aatggcaatg 120  
actttaggta cttccctttt ggtgttggca gaagaagctg ccctggaatc attcttgcac 180  
tgccaattct tggcatcact ttgggacgtt tgggtcaaaa ctttgagctc ttgcctcccc 240  
ctggccagtc acagattgac actagtgaga aaggagggca atttagcttg cacatactca 300  
agcattccac cattgtggca aagccaaggt catttttagac tccaccacat gatcatgatc 360  
atatgatcaa tccccttaat tntttctttt ttcttttccc ttttctttac tctgtattgt 420  
atcaatgctt gaaaatggg ttgttccaaa aatgtcatat atacttggcc tgctaattggg 480

tattgaaatc tctgaacttg aagtgatgca tcggtttgag atggtttcta ataaacctac 540  
acttttgtct ct 552

<210> 5250  
<211> 458  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071c04d1

<400> 5250

agagacaaat gtgtaggttt attagaaaac catctcaaaa ccgggcatca cttcaagttc 60  
agagatttac aatacccatt agcaggccaa atatatatga catttttgga acaaccccat 120  
tttcaagcat tgatacaata cagagtaaag aaaagggaaa agaaaaaaga aaaaattaag 180  
gggattgatc atatgatcat gatcatgtgg tggagtctaa aatgaccttg gctttgccac 240  
aatggtggaa tgcttgagta tgtgcaagct aaattgccct cctttctcac tagtgtcaat 300  
ctgtgactgg ccagggggag gcaagagctc aaagttagg accaaacgtc ccaaagtgat 360  
gccagaatt ggcaatgcag gaatgatttc aaggcagctt tttttgcaa cacccaaggg 420  
aaggtaccta aagttattgc cattggcttt aacaagcg 458

<210> 5251  
<211> 535  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071c06a1

<400> 5251

tgacacttca tcggacctga atcgatcagt attacagtta annngatttt ntccataaaa 60  
taccataaaa aaaagtggga aanaaactat gttactcata tattaatat ttttttttaa 120  
ttattttgaa acagatgaaa tattaatata atataataag tggatctacc tgggacaatt 180  
ttctatactt tcttttactc atcaccata ttacatacac ttaactctat ccttctttaa 240  
cgaaaagaaa acaagatgaa tagctccac caagattagt tacactactt tgatgaatgc 300  
tttcgcatac tcgggtcagc cgaaacttgc tcacagagtg ttaaacgaga tggacagtta 360

ccctcgattc aacgtggatt tgatcgcatg gaacatgatt agatgaagga tattgcagat 420  
 tgcgattgca tgcataaggct aataaagtga tccacaagat gaacgaaagt ggatttcacc 480  
 ctgatctgag cacttatggc agattagcca acggaattgc ataggcaacg aaacc 535

<210> 5252  
 <211> 438  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071c06d1

<400> 5252

aaaattacaa gtcacgaaa ttatacattg atttcatacc tgggaaacct gagctttaat 60  
 tactaaacga ctttgcagat gtagagtaca ataggcactt tttttagtta actaaacatt 120  
 tatttgtaca ttgtcaatta gaagaggcct ttctcact tgcactatgtc atgaccagct 180  
 attaaagggg gagcaactaa accgaatcat aggtattgcc atacccttcc atagggctta 240  
 accgccactc acttacatcc taatctgaat tatgcctacc catccaaaac ttaaagcct 300  
 cagcagccct ttacctctct actcttgctt cttgtgtagc ctttgaagcc tgcttactag 360  
 taaacattct tgaatgcatt ttcacatgga ttctagctaa ctcggtcctg gtgggaggca 420  
 tcccatttta cttcatgc 438

<210> 5253  
 <211> 452  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071c07a1

<400> 5253

gaaatatctc tttcatagaa cggagaaaga cagcatgcag gaagcgacga aggtgataat 60  
 aatcggtgcc ggaacttctg gtatcgccac cgccggttgc ttaacgaagc aatcaatacc 120  
 ttacataatg ctcgagagag aagactgttt cgcttcgctg tggcagaaat acacctacga 180  
 tcgtctacac cttcattcga ggaagcaagt ttgcgagtta ccgcacttac cgtttcccaa 240  
 gtcttaccct cactacgtgc ctcggaagca gtcataagac tacttgggaa actacgttaa 300  
 ccactttgag atcaagcctc tgtaccagcg tgcagtggag ttggtggagt atgatggatg 360

gaaagggatt tggagagcga acgctcagaa tagtagatct ggtgagcttg acgaatacgc 420  
tggaaagtac ctggtcgtgg ccagtggcta aa 452

<210> 5254  
<211> 535  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071c07d1

<400> 5254

aaaacaacat acctaattca tatccccaaa agaagaaagt gtcatgtaca tactgtttct 60  
gcaaccaata atagataata gatcattaca tgacacaaat tccttctctt tcttcttgag 120  
gaattaacga ggcaatatca tttgctacta attgggcacg catgttagct ccaaagaaac 180  
cccttcttga cagcccaaca caatacaaac catttcgacc tttccaatga tttgggaaac 240  
tgtttttttg aaagccatcc tcatttagaa gatcatcacc ccccttaagc cacttttgag 300  
ttgatctctt gaagcctgta cagaaaacaa ttgagtcgaa tgtgtacgat ttgccatcct 360  
ggaacaaaac ttcattacct cttatactct ttatttcagc tggcaacacc tacataacat 420  
ataatagaat taatcaacct cagctcatac gtctcttcag ttgaaatctt tttttcttaa 480  
cctcttaatt ttaaccaatc agctgaaatt tattttgtta accttttaat ttttaa 535

<210> 5255  
<211> 586  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071c08a1

<400> 5255

actgaaagca ctcagtaggg tttgcggttt cagagtttgt gacgcacgca tccatggcca 60  
ccaccaccaa cgccgccgca gccccgccgc gccagctctc ccagaaggaa gccgacatcc 120  
agatgatgtt agccgccgac gtccacctcg gcacaaaaaa ctgcgacttc caaatggaac 180  
gttacatctt caagcgccgc aacgacggga tttacattat taaccttggg aagacatggg 240  
agaagcttca gttagcagct aggggttattg ctgcaattga gaacctcag gatatcattg 300  
ttcaatccgc aaggccttat ggtcaaagag cggttctgaa gtttgctcag tacactggtg 360

ctcatgctat tgctggaagg cacactcccg gtaccttcac caatcagctt cagacttcgt 420  
tcagtgaagg tcgtctcctt atcctcactg atccatgaac agatcaccag cctattaagg 480  
aagctgctct tgtgaatatt cccaccatcg ctttctgtga cactgattcg cctatgaggt 540  
atgtggacat tggaattcct gccaaacaca cgggaaacac agcatt 586

<210> 5256  
<211> 270  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071c08d1

<400> 5256

gataaaataa aaaaaataa aacaaatata aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60  
aaacaaaaaa aaaaaaaaaa accaacaaaa aaaaaaaaaa aaaaaagaca aaaaaaagca 120  
aaagcaacct aaaaacacaa aaagcaaadc agaaccacaa acaaagaaac aaaaaaacia 180  
ccccaaagaa agaaacaaaa aaacccaaag tgtaaaaata gaaaaaccaa aaacaaaaaa 240  
aaaaataaac ccaacccccca aagaaccccc 270

<210> 5257  
<211> 613  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071c09a1

<400> 5257

tgctttctca tgtgcacatc cgatcagcat atcgttgna tgttcnctcg gactccctc 60  
gtaatgcagg aattctgctc gagtttcgtt attctcttat tcatttttct cttctgaata 120  
atccagatct gtttctgggg ttttctccgt cacgcttttc gtgaccggat ctgtatggat 180  
ttgatccaga tctacacgcc gatggtggct ttggccgggt ctttcataga tctggtgcgt 240  
agaggctcag atctacggta ccgaggtaca acagagaatc gatgacaaga acgcagatcc 300  
gacggtagat ccagccgatt ccgcttggtc gatcgctaca gaccctgta tcggatcatt 360  
aagcagcgtg tctcgccgt tctacacgtg ttgccgatct cggatgttgt aaaattagtt 420  
tatgatgtga agctatggag tggaaaatat gtggatgtag gagatttcgg gatgaatggc 480



ctcaaaacgc tttgtcgttt gtggctattg agtcctgagt gatcttgtca tccgaccttt 540  
gccatgacag gtgcgcttgc atggcaggtc aaaaaatgtt aataaaaaaa ggttttattgg 600  
tttggggaga gat 613

<210> 5258  
<211> 524  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071c09d1

<400> 5258

gtcatagcag atttcatata ggcgtcttcac attgatattc caatcatcgc cagaagattt 60  
acaatgttaa tgaccttaatt ctgcattaca aatgttgtcg cccgaatctg aacttcttac 120  
aagtagataa ttgtacaatt atacaaagcc cccgcaatac aaatggccca tcttatttgg 180  
atacaagtaa ccggagttaa ccaaatacaag taagatgaaa aagggaacaa ttacatgac 240  
aattacaaca gtatagcttc acaatttcta taaacagtaa aattatgcat aaggaagtcg 300  
cagcaggcag ctaatatgaa atgaagacaa ttattaataa attccttggc tcgatttatt 360  
ttcactatga ataacgtgat attagattca tgaggatatt atacctacca gaatattgat 420  
gaactccacc tagcatcttc tgccaatatg attgccagaa ctacatatta atattaatta 480  
catgaccagc ttattaatgt actagaatat gtcatgaata ctct 524

<210> 5259  
<211> 567  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071c10a1

<400> 5259

atggaggcta cttcagcagc cactgttccg acaaccttct acatgtcccc ttctcaatct 60  
cacttgtcca acttcggaat gtgttacggt gtcggagaaa atggtaactt ccattctcca 120  
cttacggtta tgccctctcaa gtctgatggg tcactttgta tcttggaagc tctcaaaaga 180  
tcacaaacgc aagtgatggt gccaaactcg tctccgaaat tggaggactt tctaggtggt 240

gcaactatgg gaactcacga atatggaagc cacgagagag gtttgagcct agacagcatc 300  
tattataact cccaaaacgc agagggtcaa cccaacagag accttctttc acaacccttc 360  
aggcaacaag gtcatatgag tgtccaaaca cacccttatt actcaggcct tgcttgccat 420  
ggtttatatc aagcacggtt ggaggaagaa acaacaaagg aaacgcacgt gtcggattgc 480  
agctccctaa tgcctcanat gacagaaggc ttgaaaaact ggggtggctcc aacaagggag 540  
tttttcactc accagcaggt tttggag 567

<210> 5260  
<211> 465  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071c10d1

<400> 5260

aaacttagga aatcaaatta gaaataaaag atgaaggaaa aaagtaaatt ttagttacat 60  
aacataacat gaaaaatgga ccgtgcctat ctccatttaa gtatcagtcc aagaagcaaa 120  
aactggcaag tgagacaaag agatagcagg agaaggcctc atttgaaccg ttggtgaggg 180  
tagccaagag gtaacactgg taccaatggg gttcacaatc tttgtttcca ttggaggcat 240  
tggaacaga agcgaggagc cccttttctc aggactagcc tctcttgagc tgcttaaact 300  
tgtcaccagc gatgacgtgt ttgaaaaatg agtcccaatt ttgctagact cgtccagcat 360  
attatgctgc ccagaacca ccgaatcaat cccaataaga tcttgtaggg ccatagaaaa 420  
tgcactgttt ctgtaatttc cacagttcat tattttttgg tcaact 465

<210> 5261  
<211> 595  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071c11a1

<400> 5261

gaaaatgtgg aagagaacgg gttttgaaga agaagcagtt caattgatca actcagattt 60  
cagggacctg agtctagctg ctaatagact cgcccatcat gccatcaaac ttggtggcat 120  
tggttttggg gcctcttttt tcggattggt tgctgccatt gctgctatct atctgttgat 180

tttggatcgt acaaactgga aaacaaatat tctcacagca ctactcattc catacatttt 240  
 cttcagcttg ccttcattaa ttttcgacgt cttcagggga gagcttggaa aatggattgc 300  
 tgcagttgct gttgtattac gccttttcct tccaagacac ttccctgatt ggctggaatt 360  
 gcctgggtgct ctgattcttc ttatcgttgt agctccttct ctaattgcaa gcacctttag 420  
 agacaacatt gttgggggtgg tagtgtgcct catcattgca tggtatttgc tgcaagaaca 480  
 cattcgggct tctggtggtt tcagaaactc cttcactaaa gctcacggca tatcaaattc 540  
 cattggcata atacttctgt tgtttatccc atctgggcgc tgggtgcata ctttt 595

<210> 5262  
 <211> 496  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071c11d1

<400> 5262

agcaacaaat gtaaatttat attatatccc acaggtaaaa atacaacgat ttcccaaattc 60  
 atacatgatt tatgaatata cgacagctag aaagacacca catcaatcct cttcatcttt 120  
 tgttttctac attctatgaa accagaggac ttaaactgag attttattcc actttttaac 180  
 acatgctaac tttaggctctt aggacaaaca tgaatcacia aacaatggcc ggggtgtttat 240  
 agatatcaag ttgcaacaaa tgaatgatac agaagacact tggtttaatt ctacatatc 300  
 aaccaagtcc aaatggtggt gcctaaaaaa gtatgaccac cagcgcccag atgggataaa 360  
 ccaacagaag tattatgcca atggaatttg atatgccgtg agcttttagtg aaggagtttc 420  
 tgaaaccacc agaagcccga atgtgttctt gcagcaaata acatgcaatg atgaggcaca 480  
 ctaccacccc aacaat 496

<210> 5263  
 <211> 577  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071c12a1

<400> 5263

gaaaatgtgg aagagaacgg gttttgaaga agaagcagtt caattgatca actcagattt 60

cagggaccta agtctagctg ctaatagact cgcccatcat gccatcaaac ttggtggcat 120  
 tggcttttga gcctcttttt tcggattgtt tgctgccatt gctgctatct atctgttgat 180  
 tttggatcgt acaaactgga aaacaaatat tctcacagca ctactcattc catacatttt 240  
 cttcagcttg ccttcattaa ttttcgacgt cttcagggga gagcttggaa aatggattgc 300  
 tgcagttgct gttgtattac gccttttctt tccaagacac tttcctgatt ggctggaatt 360  
 gcctgggtgct ctgattcttc ttatcgatgt agctccttct ctaattgcaa gcacctttag 420  
 agacaacatt gttggggtgg tagtgcgctt catcattgca tgttatttgc tgcaagaaca 480  
 cattcgggct tctggtggtt tcagaaacta cttcactaaa gctcacggca tattaaattg 540  
 cagtggcata atacttctgt tggtttatcc catctgg 577

<210> 5264  
 <211> 496  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220071c12d1  
  
 <400> 5264

agcaacaaat gtaaatttat attatatccc acaggtaaaa atacaacgat ttcccaaate 60  
 atacatgatt tatgaatata cgacagctag aaagacacca catcaatcct cttcatcttt 120  
 tggtttctac attctatgaa accagaggac ttaaactgag attttattcc actttttaac 180  
 acatgctaac tttaggtctt aggacaaaca tgaatcacia aacaatggcc ggggtgtttat 240  
 agatatcaag ttgcaacaaa tgaatgatac agaagacact tggtttaatt ctacatatc 300  
 aaccaagtcc aaatggtggt gcctaaaaaa gtatgaccac cagcgcccag atgggataaa 360  
 ccaacagaag tattatgcca atggaatttg atatgccgtg agctttagtg aaagagtttc 420  
 tgaaaccacc agaagcccga atgtgttctt gcagcaaata tcatgcaatg atgaggcaca 480  
 ctaccacccc acaatg 496

<210> 5265  
 <211> 564  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220071d01a1

<400> 5265

tgacacatctc catgtgtcta tcaactcgca tatcagttaa nnggttanat cttaaanacg 60  
caatatttaa aaaaaaatat gtatattatt ttattttttt tatatttatt tataattatt 120  
tttttttaggg gtatttggtta ataatatatta atttatatta ttattatttt ttattttaca 180  
tggttaaggat caattctgaa ccaaatatgg gaatctaatt ttacacctca gaaaatcatc 240  
agaggtttag gtccttgggg tcttgatatg gtcctcaagt ataccagtgc caggtttggt 300  
acatatataa ctgggggaaac gctgacagaa tctgaatcga gattactgac agattatggt 360  
taccatactt tagcagccaa agctagtggc gagctgtgct taaaatatat attttcattt 420  
ggaggactcc cgaggtcacc tcttcttcac agtgcttcag agtggaaagt gcctaccacc 480  
ttcatatatg gctttcagga ctggatgaat tatgaaggag cccaagaagc acgcatacaa 540  
atgaaggttc catgtgaaat cctt 564

<210> 5266

<211> 484

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220071d01d1

<400> 5266

cagtattgaa atttatatta gacgtcatta ttttttgaat tgccattaca agttacaatt 60  
gcaaattcca tttaagcatg aataggacat ggcttgaata aataaaggag tttaatttgt 120  
aaaagaaata tataatcata gacagcatta cacaagatta tactctatgc agaggtagc 180  
ccttcaggaa gggattcact gtctggatca ggcctaagaa accttttaca agcataaaac 240  
actgctgaat ggaagccact tgggttggtca atgaacacaa agtgcccggc ctggggaacc 300  
ctaaggattt cacatggaac cttcatttgt ttgcgtgctt cttgggctcc ttcataattc 360  
atccagtcct gaaaaccata tatgaagggt gtaggcacct tccacctctg aagcactgtg 420  
aagaagaggt gacctcggga gtctccaaa tgaaaatata tattttaagc acagctcgcc 480  
acta 484

<210> 5267

<211> 637

<212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220071d02a1

<400> 5267

gcttattcat gctgacgtca gatcgaatac caatnanana taaaacanaa aaaccaanaa 60  
 aaaaaattaa aaaaaaaaaac aaaataaaaac attctnagct ttanaataac ttgattctgg 120  
 tgggacctgc tggattctca tcagaatcag aaagaattac aaagttctta tcaacatgga 180  
 aaggatcaat cctgaaccac atatgggaat ctaattgtac acctcagaaa atcatcagag 240  
 gtttaggtcc ttggggtcct gatatgggcc tcaagtatac cagtgccagg tttgttacat 300  
 atacaactgg ggaaacgctg acagaatctg aatcgagatt actgacagat tatgtttacc 360  
 atacttttagc agccaaagct agtggcgagc tgtgcttaaa atatatattc tcatttggag 420  
 gactcccgag gtcacctctt cttcacagtg cttcagagtg gaagggtgcct accaccttca 480  
 tatatggttt tcaggactgg atgaattatg aaagagccca tgatgcacgc aaacagatga 540  
 aggttccatg tgaaatcctt aggggtcccc aggccgtgca ctctgtgttc attgacaacc 600  
 caagtggcta tcattcagca gtgttttatg cttgtag 637

<210> 5268  
 <211> 419  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071d02d1

<400> 5268

cagtaatgaa atttatatta gacgtcatta ttttttgaat tgccattaca agttacaatt 60  
 gcaaattcca ttttaagcatg aataggacat ggcttgaata aataaaggag ttttaatttgt 120  
 aaaagaaata tataatcata gacagcattt cacaagatta tactctatgc agagggttagc 180  
 ccttcaggaa gggattcact gtctggatca ggcctaagaa acctttttaca agcataaaac 240  
 actgatgaat ggaagccact tgggttgatc atgaacacta agtgccaggc ctgggggaacc 300  
 ctaaggagtt cacatggaac cttcatttgt ttgcgtgctt cttgggctcc ttcataatta 360  
 atccagtcct gaaaaccata tatgaaggcg ggaggcacct tccactctga aacactggg 419

<210> 5269  
<211> 562  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071d03a1

<400> 5269

tctctctcct ctgtcttata actttacctt tctatcctca tggagtagta aagaagtaac 60  
taatcaacca caaacctaaa caaccctttt tgcctaaagc tccttccttt tctccaatgg 120  
caacctgggt tttatcagaa tgtggcttaa ggctcttcc accagtgttt ccacgggtcaa 180  
caagacccat ttcgtgccaa aaaccttcaa agtctagatt tttaagcaca aacaaggggtg 240  
tgccagatct gaatctccaa gcaagagggt taacatgctg tagttttagg gatagaaagt 300  
gggaattggg agtgagtgtt ccactgaaag ttgccaccaa tgaaggagag gaagaagaga 360  
gaaccaatgg ggctaataat ggggttggcg aggaagtttc agaatttgac cctagtgcac 420  
caccaccctt caaattggca gatattagag ctgccattcc taaacactgt tgggtgaagg 480  
acccttgagc gtccatgagt tatgttgcta gagatgtcat tgtggttttt ggggttggtg 540  
ctgctgcagc ttatctcaac aa 562

<210> 5270  
<211> 471  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071d03d1

<400> 5270

gctacaattc tattcaatta ctatcattca acattgggtg ttgagtttga gcaaaaaatt 60  
gtaattaaat cgatgaagac agcacaccct tcatcaagaa tgaacaattt acagattcct 120  
tgtttttcaa tgagagcaca ttacatatac accctgatca tgctttaaaa tgcactcggt 180  
tacaatatca aatttgtcat gcattcattc gtcctatgagc aattcaacta gtagactcaa 240  
tgagagtaca caatcttcaa agttcagaaa ttgtgtcata tgcagcataa ttctgaggcc 300  
tctctgttgt cttcaagagg aaaaaatgga tgatttactg tgatgtggaa gagctactaa 360  
gtgtagggtc tgtttgatag tataacaatat cgccactgtc actgacaaaa tggctcttct 420

tcatgcttct taacaattct ccaatgaagt aaattggaag aggactagac t 471

<210> 5271  
<211> 483  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071d04a1

<400> 5271

tggttgatc cagtggaggc ttcaacctac gaacttgctc ttataatcac tcgctctcct 60  
acgcttcttc tttctctctc cactccatt ccacaccca cactcttctc ctctatttaa 120  
caacgcccga aaaaaaatta gggttttcaa tttggggaaa taaaaatagg gggaaatatt 180  
ctggagagag tgtgtagaaa atatggttgt cgatgatatg acgctgtgca tcatcgtcgg 240  
ctatggaggt tcctcttctt ctctgttctc cgatgcttat cccaaaagg gtttgatgga 300  
ggggagatat agtggggatt gatatgtgca aggtgtttaa gcggcntgct cctgctgac 360  
gtgcttctg ggatggccat attgcacgaa ccagctttaa aactcatgca ccagacgagc 420  
tagcctgggc gattcttctc taacttctat gtccatggag tttcaccacc ccttcacgct 480  
ctt 483

<210> 5272  
<211> 479  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071d04d1

<400> 5272

attccaaagg tatgatttgg taatttctta taaatgatga gaactagctg ttcaatactg 60  
cttacaatca aaagcataat acagatgcac cggaacaaaa agaaccaggg cagtcagtga 120  
gctaaaattg ctagagacaa acataagaga cacaattcta ttgcaaataa cactgtatgg 180  
tacaaagtta gaaaaacaat gacatacgaa ccataccgga atccctaaca aattttttta 240  
agtgcctatc tcaagttaac ttgatgcat tcctctccag atgagggcgg aggcaaacc 300  
ggacttcatg ctcttttggc cccacgcgat gttttggcac caggatctca agcactgatc 360  
ctggcccatc gtagtatgct tctatgttgg catcttcagg aattcgagtt gaaagaggga 420



tttctcggac gaactctcca ggggggcagt gctctgacga tggatctgta agcttgaat 479

<210> 5273  
<211> 620  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220071d05a1

<400> 5273

cattgctgta tttcctactc agcattacca gtaaannggn atataaacgc agaaaagggc 60  
caagaagaga tacatggtga agaataagagt aagaaaaggt aatcatatct ttatttgtcc 120  
ttattcaatt catatatact atctttccct gggctcacgg gtgctctatt ttattgcaca 180  
tatccctctt tatggaacag caccatggca tattcactgg ttggcgtaca gcataatcaa 240  
taccacaag gacgtagatg tcaaacaatc caagggtcat actactaaaa acacaaagcc 300  
aaatattgac tctgacaatg tagcgtcttc ctctcaact aacaatgctg acaaaactgg 360  
tggatttaac acgaatatgc caatgaaaca gcaaggggaa aagaaacctg ctgcacagcc 420  
tcatgcatcc aggactgttc ttgaagagaa tatagtacta agtgttgcat tggagggatc 480  
aaagaggaca cttccattg atgaagagat tgacaatgtg acatctcgag aagcaaagga 540  
aatggctgca ttgcacggtg gaaatggatc tccaaggctc cagatggaaa agacaactag 600  
ttattataag cagcgagttc 620

<210> 5274  
<211> 493  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071d05d1

<400> 5274

gatgaaagcc attttccata tattgctgaa acagcaaaaa atgaagagat atgacaatac 60  
agctcgagtc ctttgtaaaa ggggtgtgac acatggaagt gataatacat acaacttcct 120  
aagggtggga aactggttca aagcagtgtg ctgttggaact tggaacatag ctttcaaaca 180  
actaatgatg tgtttgaaa accgttgtaa tccgttgaa caaacatttc ccaactttcca 240

atgtacaaaa gtagaaacaa gagtgggtgtt ggattggggt tgcattggac gtaactgcaa 300  
 tgcaaacacg agctaactag tcgaactcgc tgcttataat aactagttgt cattttcatc 360  
 tggagccttt ggagatccat ttccaccctg taatgcatcc atttcctttg cctctcgaga 420  
 tgctacattg ttaattttct tatcaatggg aagtgtcctt tttgatcctt caatgcacac 480  
 ctaatactat att 493

<210> 5275  
 <211> 584  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220071d06a1

<400> 5275  
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 nnnnnnnnnn nnnnnnnnnn nnntttnnnn nttnnnnnnn nnnnnnnnt nnnntnggn 120  
 ntntggggn nttttttgtg tgtgtgtgtg tgcttggtgc ctctccattt ccaaaacacc 180  
 aacaccacc tctctcttct ctttcgcga cctctttcc cattcaacc acgcttcaa 240  
 aaccaccacc agccctctc cttccttga attccagcta ttcacccctc cggggattga 300  
 acccgacgag gtcgatgact ccacggtcct tcccggctcc aacatcgccg tcggacccta 360  
 cgccggccat tcccacatca aggacgtcca gtgcgtaaag agtagcgccc ggttcgtaaa 420  
 gagtagcgcc cgcgccaggg attgccc aaa agacaaccga cctgaattcg ccgttcttgg 480  
 tcgctccaac gtcggaaaat cctccctcat caattccctc gtccgcaaga aagagattgc 540  
 tctcacttct aagaaaccag ggaagacgca gtcacatcaat cact 584

<210> 5276  
 <211> 473  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071d06d1

<400> 5276  
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 ttacaatgt ttacatattg caaaaagatt agttttgctc cagaaaatct taaatgccaa 120

agcaatggta ccccaaaata tgtattctgg caactacgga taaataaagc cagcacgata 180  
ctatatccca gttgaaagca tacaacattt cctgggatgt tttatcccca tttgcatata 240  
acgtgaccat taaccctaata actcaggggc agtatgtgga aattcattat ccagaaacaa 300  
ctcaaacttg attcccaagt aagttgtata tgttgttgca gttcaagaag aacaaagatc 360  
ctgaatcctg atcaaagatc cagctgaaat atttcaaggc tcaaccaaac ccatagctct 420  
ttcacatgac tcttccatat agttgcatct tttacaagtt caactttgac cct 473

<210> 5277  
<211> 453  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071d07a1

<400> 5277

ggcgtgcccc tcatatctac gggctgcact gtgcactgct tgctggatgat ttacaaaatt 60  
gcttttataaa atgacatttt ctgatcaaaa gagtgtacca gaggaatca taaaagagc 120  
agcagctgtg ttggatgcca tttcaaataa taaccatgtt gagcggttat gcaatgagaa 180  
cgtctctgct caagatcgtc aatacaagga tgccatggag aaattggttg aatttgatat 240  
tgacaaaggc gacttaaaac ttttctttga ggatgtattt tctctagttc ttaatgcttc 300  
gtgactgaac tgaagtcttc tgttggtggt tttcgtaggc attattgaga cgccatttgt 360  
gatcatatga catttgtttc aagatgagtt gcataacctat cgaattctat tgtattgagc 420  
aatcctttta tggagaacta attgaaaaag aga 453

<210> 5278  
<211> 398  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071d07d1

<400> 5278

caattagttc tccataaggg gattgctgaa tacaatataa ttcgataggc atgcaactca 60  
tcttgtaaca aatgtcatat gatcacaat ggcgtttcaa taatgcctac gaaaaccacc 120  
aactgaagac ttcatttcag acacgaagca tttagaacta gagaaaatac atcctcaaag 180

aaaagtttta agtcgccttt gtcaatatca aattccaaca atttctccat ggcatccttg 240  
 tattgacgat cttgagcata gacgttctca ttgcataacc gctcaacatg gttattattt 300  
 gaaatggcat ccaacacagc tgctgctctt tttatgaatt cctctggtac acttttttga 360  
 tcagaaaaag gcattttttaa aagcaatttt gtaaatta 398

<210> 5279  
 <211> 297  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071d09d1

<400> 5279

aacagggaca tttttttgaa ttcgaaaggt tgggaaattt aatagctctg aaaaaatgcg 60  
 ttaaacaatc ataatcaaac cccgatcatg gtaaaacaac taaaagcgct tttaatccaa 120  
 ctaaaacggg tgccacataa gcagctgctt agtatctgac tgatttagca acctcgaaag 180  
 attgtgccac atttttctta ggcgtaccta ctttaatgcc ctgtccagaa ttcacgatat 240  
 gtttcccat acctgctttt ctacagtggt catttatccg atcagtgctg aaccctt 297

<210> 5280  
 <211> 573  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071d10a1

<400> 5280

ctattattct atctatctat tgtttcgttc catctcacia aaagaaaaga aaaatgaaaa 60  
 tgaaaatgaa aatgaaaatt tcaagttcct gaaagagaga gagagaaagt tgaggactta 120  
 aatagtttca gttcctgaat tccattagat ctcttgcat ttgtaaacag ttttcatcgg 180  
 aaagttcgtt acttgatcgt agtttggtcc ctccgacgtg tgctcgaatg ttgttttttt 240  
 agtgacaaaa gaatctggtg tatttatgct tctgggttatt ggatgagctg tatgttttaa 300  
 ctatggtggt gaagaagagg gtagattatg gatttaattg ctttcgagtt cctgttatac 360  
 ctaaagctcc tagatctgcc agaaggaggg ttgctttcaa caaagcagtt gacgatggtc 420  
 aagtttgccg tattgaacta ctggcatctt tagctggcca attgttgcaa gagagtgaaa 480

gttctgcttc cagcaatgcg tctgaaggat atcatcaacc tgccttcagc caaggtgtaa 540  
 ttgagcaaga tatacaagat gaagttaaac cat 573

<210> 5281  
 <211> 284  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071d10d1

<400> 5281

attcttgcct gcattcataa atattaaata atctaagcaa aaatcaaaga atggcacaag 60  
 tgacagtgtg aacaccctca ttggggcaaa tcattcccaa aagccaaccc tgcaagcaat 120  
 tactggggcac aaataaaata aagtaagaaa attacaagaa aaagcatcga atccacaagc 180  
 acaaaatctg ttctcccaag atcctgtcac aacgaccctc ccattctcac catcatcaca 240  
 actgaatgga ctaccataac ctttaacaca gacaaagtct gctc 284

<210> 5282  
 <211> 315  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071d11a1

<400> 5282

atctaaagtc actttgggga gccattgatg agtgtgcctt cccactcaca tggaccaaac 60  
 cgggacaaag gcagaaaaac tgggcatagg gcacggaggt ctgcggcacc aaactgtacg 120  
 agcgatcgaa atccgcgaag ggactctcta ttactgaagt tcagagtcaa ccgaatgaga 180  
 tatgaatgaa tcagaaccat gcagcattga taggaacaat gttcaacaca ctactgtggc 240  
 ttacgctgat aaccaaaccg ggtctgcggc tggagatccc gacagtagac atgaccttt 300  
 aagagagctc cgaca 315

<210> 5283  
 <211> 343  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071d11d1

<400> 5283

ggcacggagg aagcaacagt gacagaccta ataagcatta gggcacaat tatatatacc 60  
aacatttatc cataaact acttaacagct gattggtctc agcgcatgac agcctgtaga 120  
catatgacac agttccatcg atctactctt tcttgactaa cctgggaata tacacgtgct 180  
gcctgcagat cctattgtga gcccaaaggg ctgctaaggt gctacaccga gactgacaca 240  
tatagaatta tgtatgactc ggctcagctg aaacagaaga tgtataactaa cagctcgta 300  
tgatgatacg ctttccgagc atgccgacca ctgcggaag ctt 343

<210> 5284

<211> 601

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220071d12a1

<400> 5284

gctcattttc acaaacttgg tttttgttct tccaacaacc caaatctcaa acctctcct 60  
ctctctctct tgtgattctc tttctttctc tctcttcaaa cttggacagt ttatggcagc 120  
agctagattg tcggggcatg aattgtccga tctgtgtctt gggaaaccgc cgctcaggtc 180  
cctctccgtc cgcgacaccg tagccgacgc cctcgccgcc ttgaagagga tcgacgacac 240  
ctacgtcagc gtctggaact gtaaccactc tttcattcga aaacaacaac ctcaaattaa 300  
atcccaggaa cagctccaat gctgctgcac ctgcatcggt aaggtttgca tggctgacat 360  
catctgcttc ctctccaaac cccaaaacct ctcttcacct tccgccgctt ttctttcccc 420  
aatctccgct ctctccacg acaactccgc cgtctcgtc cgccacctc caccacacgn 480  
cagtttactg gaggtatag atgttatgca cgatggggtg cagaacctgg tgataccaat 540  
acanatccag tttggatctt ttgacctcaa cancgctgcac cacaatgaca acaccaccta 600  
c 601

<210> 5285

<211> 549

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220071d12d1

<400> 5285

atggaaatta aactctttaa gattttttcc ttgaaaact aaattacatg atggaacatc 60  
ttgggaggcc aaatttaagc aaaagaaaat cacgggtagg taaacaaaaa gcaaaattga 120  
tttgtgccta ggcacaaatc cgtgctatct acttcatatc tcgattcttc gacaaagcca 180  
aaagagatca tttgcaagcg gattttttatt acaacaaatt agctgaagtg gtagcatata 240  
gtagtcgtta tctgcatcat catcatcatc atgtaatgta gtagttttta agtaactggt 300  
agcacatgga tttgaggtgg tctctgaaaa cttcaacat tccttggaat gtaacaatcc 360  
ccgtcaaggt tccatcctct tccacaacc acacgtaact cacacgatgt gccaatgctt 420  
gaatcatcac agcaactaaa gagctccaac ggtagcaaac aatggcttca gaccttctcc 480  
caacccttgc agagtaccct ccaagcttcc aattcttccc agagcaaaac tcttcatcag 540  
aagaacaac 549

<210> 5286

<211> 652

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220071e01a1

<400> 5286

gcgtcatcga tcgattcagt aaaagataaa gcganaaacc aaaaaaaaaa aaggaggagaga 60  
ggaaaaagga gaaaagtttt aaaatttaca gtagaacctg agattttaac ggatcagat 120  
tctgatattg gaatatcagg atctggtgcc aaatacactt atgatagatt tcctgcaaat 180  
atcagaacag aagaacaaga agaaaagagg aaacagattc ttgcagcagt tagtaatgct 240  
tttgagtact caggaaggca tactcctagt aaggatcctt tagcagatag tcttagtcca 300  
gacgagagag ctgctgaaag ggatcgcatt gtgctagata ttcagggtta gctgcagggt 360  
ttatggctgc ggcttcttaa actgggagca acagatgac ctctctcatc ctttgaatat 420  
ggaacgatac tcgctctgat tgaatctgat gcagagggga ttggcggtag tggatttggt 480  
gaatgtataa gagagcatat acattcgggt tgggactgtc atctcactga agaacagttt 540  
attgcagtga aagaattgct taaaacagct attaatcgcg caacatcacg taatgactgg 600

ttgaccatta gagatgctct tgaagttctt ctgaatgtta agatagatat at

652

<210> 5287  
<211> 454  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220071e01d1  
  
<400> 5287

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agaaacctct aaccacaaaa ttacaagtgt tcgcaagttg gactcatcag acatatcttt 120  
gcacattttt atatactata aggaaaataa acaaaaaata atggagataa cccctcctct 180  
tcattaagta ccttgtcttt cacctttaaa attgttaca tttacaaacg tgaaaatgca 240  
tttaacgatt gaactcaaat attaatagtt gcattccaca gccttataag cccgttgcca 300  
ccaccgtgc atatcctttt cctttccaag tctgaagcaa cacaccttac catagcaact 360  
gttttctgtg gtgttctgta aagctgccaa ccagccatct tggaccagc gccagataaa 420  
ccaccaagtc tttcttgggg ccggtgaaag agcg 454

<210> 5288  
<211> 513  
<212> DNA  
<213> Glycine max  
  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071e02a1  
  
<400> 5288

acactcta at ccccatcaat cagcanacag atcaggatta aacaaaaagt caataaataa 60  
aaggaacaaa tcaaaaaaaaa aacaaatatt taaaattttg aaaaacaaaa aaaacacccc 120  
ggcacctctt taatacttct taccctaatt cccccaataa acacaacctt tctgacacat 180  
atatatgcat ccgtttcatt tacagcccaa catggaaatt tccaaaggct ttttctagat 240  
cttaccgat ttcaagcccg actagatttt ccttctgggt tcaaatttct ttcaactacg 300  
actgatttaa cacaatacct tctcaattct caaaagccca acatggatgc tgttcaagct 360  
attataccca atgctacact atcacttcaa caccagatcg atcataccgt cactttttaga 420



attgctttca acattacagt tgatctgaag aaccctgatt ggccgataca tgcaccggaa 480  
ccagtattag ctttggaata tgcattgcaa gta 513

<210> 5289  
<211> 384  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071e02d1

<400> 5289

attatcttat atttgcgtta ctttgggggtt ttttttacta tacacacctc aaatgcactt 60  
tacctataca agtttgggaa ctagactact gaatagtctg gaagtggaaat cgcaacaagc 120  
gttgcaacaa atcaaaatgc aaacgatgaa actgcaaaaa gaatcatagc gcaaaatgca 180  
tatagaggga tagaacctaa acctctactt aattgacctg caagctcttt agaatagaac 240  
tggtataagg aattgataaa caaacctggg taatccgcac acgcatcac ccaccacatt 300  
tataaccttg ggccaagact tgagcaccac ctaactgaaa aaatgcttga cccttcctat 360  
ctggaaggag aggctaacac attc 384

<210> 5290  
<211> 534  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071e04a1

<400> 5290

tatctttagt gtttctagct cctcagagaa atcaaaggtc aagacagggc agcagcagta 60  
ttccttctcc cattcacgtc gaccaatca ttctttacat ggtgctcatc cgaacttaga 120  
tatacagaaa attagtcttg gtaattccct tagtgtcaat acttcccagag agtggaatgg 180  
tgtctcttca gctgcaaagg acaacttaag tcccaatagt agagttgtgc ttagtccagt 240  
tggtgccact agatccactt ctctatctgc tccttctagg aacttaggta acaattcaac 300  
cccttctgca tggataacat tggagaagag gcctactttt cctatccaga gcaggaatga 360  
tttcttcaag aatctttcaa ggaagagttc cttggaaaaa ccttgctctg atggtttgtc 420  
tattgacatg tcttgtgcct tggagaaatc tgaagccagc atgaggaatg tctctagttg 480

tcccattctg gagtctagag atgcttcttt agtggatacc tctggtttga acat

534

<210> 5291  
<211> 571  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071e04d1

<400> 5291

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actagcaggg tcctattaaa caacaggaag ttcactcttg gtatcttcat tttctcctca 120  
tgctcagaaa ttatatccag catgattatt tcactagtcc ttagtaaaga gtctatgctt 180  
tgccgtgata ttagtagctt ttttctgata gagctttcca attaaccaaa aggaaaatct 240  
ccttatctaa cagccacctt cgcctaattt taacactcat gccctaaag agatatattt 300  
aaagcacatt ttttgtctca tcactttcat attccaaatc ctgcaatatc ataattctta 360  
attctaaaca taactcatgg agctccaaca cattccccag cattcaagtc aagtggctga 420  
gtaatgaata atgtttttga cgtatatgtt ggagaatatt tgatcacagt ttcaatttca 480  
tgtacttctc atagaagtct tgtatctcct cttcagtgag gccttcatca tattctccag 540  
cacttttctc ccaccaagc gaacgtaaaa a 571

<210> 5292  
<211> 598  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220071e05a1

<400> 5292

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aagataggaa ttaggggtgga ggagagaact taaattgcgg gtttttagtga cacaaatcta 120  
gggagcacta ctctaggagc tctattagat tcttcaaaac atgaccatgc atcgcgagtc 180  
ttgggctttt gtcttcggcg ttatgggcaa catcatctcc tttggagtgt tccttgctcc 240  
attgccaaac ttttaccaaa tctacaagaa gaaatccact gaagggttcc agtcacttcc 300  
ttatgttggt gcactgttca gtgcaatgct ttggatttac tatgctttcg tcaaaaggga 360

agctgccctc cttctcatta ccattaacac atttgggaatt gctgtggagt caatttacct 420  
 tgcaatcttc ctactttatg ccccaaggaa gcctaggctt acaaccatca agcttcttct 480  
 cttactgaat gtgtttgggt ttggagccat gcttctatca actctctacc tgtcaaaggg 540  
 agcaaagcgt cttgctatca taggatggac ttgccttggt tcaacatcag tgtctttg 598

<210> 5293  
 <211> 499  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071e05d1

<400> 5293

actaaagtaa ttcattttca ttacccgaac attaattacg agggcaaggg aaaagtgaat 60  
 tgaaatgagt ttgactgggg gatacaccga gagaagagaa tatactacgt tacacgtagt 120  
 agtacaatat gagagtgata tgggccaaat taagagagac taagtgttgt ggccaacagt 180  
 tacatctacc cgaacaggca aattaaaacc acacctttac attaatcgaa ctaaattaac 240  
 acttatacca aatactactt actattcttg cattgtagat atgagtaata ttagatgtga 300  
 cctcactcag taaagtaatt gaagtttagg ttattccctt tttttaactt ttcttgtcat 360  
 tgatcccttg tttctccaca ttcatataat ctcaatgggtg atattcaaac tttgccaaca 420  
 gcaccagcag tagctgcgtg attcggttcc attgttccca ttttcccacg acaatgatgt 480  
 ggccattcaa ttcttgagc 499

<210> 5294  
 <211> 571  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071e06a1

<400> 5294

ctcgcaagca aaaagaaaga attccaggcg aggagaaaga tggaggggaa ggagcaggat 60  
 gtgtcgttgg gagcgaacaa gttccccgag agacagccga ttgggacggc ggcgcagagc 120  
 caagacgacg gcaaggacta ccaggagccg gcgcccgcgc cgctgggttga cccgacggag 180  
 ttacgtcat ggtcgtttta cagagcaggg atagcagagt ttgtggccac ttttctgttt 240

ctctacatca ccgctottaac cgttatggga gtcgcccggg ctaagtctaa gtgtagtacc 300  
 gttgggattc aaggaatcgc ttgggccttc ggtggcatga tcttcgccct cgtttactgc 360  
 accgctggca tctcaggggg acacataaac ccggcgggtga catttgggct gtttttggcg 420  
 aggaagtgtg cgttgcccag ggcgattttc tacatcgtga tgcaatgctc ggggtgctatt 480  
 tgtggcgctg gcgtggtgaa ggttttcgag gggaaaacaa atacggtgcg ttgatgggtg 540  
 gccaaacttt gtgccctgct acaccagggt g 571

<210> 5295  
 <211> 456  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220071e06d1

<400> 5295

tcggcggccg cccttttttt tttttttttt tttttttttt tttttttttt tttttttttt 60  
 tttatatgac tctgggggta tttttgattt tgcaaattaa attacacaat cacagccgta 120  
 cattacacat gagttgggcc ttttccaact taaaagcaga ggataacatt ggcccatgac 180  
 gcgacacatg caccacctaa taatcataat ttacatttt tacatacaaa atacaaagac 240  
 ttttaattttt aaaaagaaga aaagagatta accgatcatt ttaatgaaat gaaacaaaa 300  
 cccacaaaaca ttggcttgat ttttggtggt gttggtgttc ccaacttgat taagcatgaa 360  
 ccgtttgatt gaatcacttg gacttgaagg gaatggccct gattaccacc tgggtggtaaa 420  
 atgctgcaag agctgcaccg atgaatgggc ccaccc 456

<210> 5296  
 <211> 594  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220071e07a1

<400> 5296

gtgaagagtg aagagtgaag agtgaagtaa caaaacaaaa agagcggagg gaaagtcgtg 60  
 ggaacgaaga agccaacaaa gacaaatcaa ggtgaaaagg aaaaagccct tatgcttttt 120

tgagtttgtt tctcaccagc ttgagttgtt tagaagctca tcttaagcat tgtggcagac 180  
 ctgagtgagc attttttgag tggaaaatat gagctacagt ggctcctcaa tgagttctgg 240  
 tagtggtatct tctagaagga catttgagtt tggaaggacc catgtggtca gacctaaagg 300  
 gaaacaccag gcaactatag tttggctaca tggccttggt gataatggct caagctggtc 360  
 ccaactcttg gaaactcttc ctcttccaaa tattaaatgg atttgcccaa ctgctcctac 420  
 acggcctgta gccttatttg gtggatntcc ttgactgct tggtttgatg ctggggagat 480  
 ttcagaagat gctcctagtg atttgagggg gttagatgct tctgcagcac acgtttgcc 540  
 tcttngtca acagagcctt caaatattca actggtattg ggggcttcag tatg 594

<210> 5297  
 <211> 547  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071e07d1  
 <400> 5297

accaccaac aaccataggt tttttctgtt catatatcta taatgaaatc ataggcaata 60  
 tttataaata tgacttacta aaatttgact ttatttagac agaatatgaa tacagaaagc 120  
 aacatactac atatccatgc ccgaatgaaa taaacaaaat ttgctggatg tgaaggaaac 180  
 tatccatgct cttccaccaa agcattccca aatcccaaag caataaagat agtgagtgac 240  
 ccttggaattc aaaaacattt atttagtacc atgagaatat aagagagaga acaaagcggc 300  
 tatgccattt accaatatac ccactacac cacaccacta tgtattctat agccccctctt 360  
 tcattgccta aaactaaggt tttataatct gaccttggtg agctttattt ctctagttca 420  
 accgaaaccc ctccagtccc aaatttgagc ttagccacct gcaaacttca tcagtctctt 480  
 cagggactgt atagtgaccc accccattgt agctcctaaa tataagattc tggaatcctg 540  
 atgaact 547

<210> 5298  
 <211> 536  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071e08a1

<400> 5298

gttcttagtt ctggggaccc agtttgctgg aggagtgttt ctgggaactg caatgatgca 60  
ttttctcagc gacgctaataa aaaccttcgg ggacttaact cgcaaggagt accccttcgc 120  
gttcatgctc gcgtgtgcag ggtacttgat gaccctgctc gctgatgctg tcatttcctc 180  
ggttttgaag aatacggggc gtgaccaacc gcgtgatgct gaggatgtcc aagttcaagg 240  
ggctgatgtg agcaaagtaa gtaacaacag tgtagatct cagtcacaac accggagcca 300  
ttctatttct agctctgac atcatcactt agcaaaccct gcacttgat ctgtccgttc 360  
gcttgagac accattttat tgattgttg cctttgtgca cattctgtgt ttgagggtt 420  
agcaattgga gttgctgaga ccaaagcaaa tgcattgaaa gccttatgga caatctgtct 480  
gcacaagata tttgcagcca ttgccatggg aattgctctc ctcaaatga tttcta 536

<210> 5299

<211> 491

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220071e08d1

<400> 5299

aaataacagc atagcttcta ttataaatca tgtctacaga caaactattg atctataaat 60  
tcatttctat agctttgtat atatttcttc tccgttcccc ttgcctata atgatttagg 120  
ctaccctcca tgtgaactac ctttcttccc aagactttta taagtctct taattctcaa 180  
tacatgctca tcttttctat catttgaggc aaatttctgt catcttttct accttataaa 240  
tgattgacga aatcatttct gacaagaata tccaaatacc aaatctgacc taggaactac 300  
cacaactttt tctgtaatgt acgtattcat tatcaaaaag ataaaaaaaa gaaaaagaaa 360  
aagattctgc aaatgctgta aagagaagtt atcttggaa aaccttaggt gtcccaaatac 420  
atcacaaccg ctatcactcc cacaccaaac atcacggcat gaaacttgaa ataggctgag 480  
tcaacctttg t 491

<210> 5300

<211> 510

<212> DNA

<213> Glycine max

<223> unsure at all n. locations  
<223> Clone ID: jC-gmf102220071e09a1

<400> 5300

taggagaaca ctaacatgca tttattcaaa caactcctca gttagtttca tttcatggct 60  
aactattccc accctcatat ctgccaatgt ctgagtcact tgctgaccct ccggcaacat 120  
tttccggtca taattgccgg aaaccgccgc aagaccggcc aagagttggt ggaggaagtg 180  
ttgtccttgg cacaaggcct gctccacctt ggactcacat ctggccaagt ggttgccatc 240  
tctgctttca atagtgatag gtatctggag tggttattag ccattgcatt tgttgaggga 300  
atagctgctc ctctgaacta tcgctggagt tttgaagagg caagattagc aatggctgca 360  
gtgaagcctg tgttgtagt gattgatgag agcagttaca catggtactc aaaactccag 420  
caaaatgatg ttccatctct gaagtggcat attttgttgg attccccttc ctcagatttt 480  
ctaagnggaa cgtgttaact ccagaaatgc 510

<210> 5301  
<211> 486  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071e09d1

<400> 5301

gtactcaatt aatgtgtcac tcaataaatt gattagcatt ttcacatgaa gccgtatata 60  
tgaggaatca tagcaataca gtggtttaag gggcattgga gctatgatat attcaaagat 120  
tactatgtaa agattgtagt tgagacataa cttcctttct gacttgatct ctttttattt 180  
tccctattgt agtgagtgga aatggctttc tccatacaat aaacattttt ggtatcttaa 240  
acctgcttaa atgattttct atacagtatt gctgaatatt ctttctagat aggagaaaact 300  
cttcatttga agcagacaac tgctctgacc attgccaat tttctcttagt tggatacatg 360  
ctgctaccat ctctgtcagg tgagcatctg ggattccac aacaacaaca cttgcaatcc 420  
ctggatgttg ctgtagaatt gcctcaacct cttcagggtg aatgttctcc ccaccactct 480  
tgattc 486

<210> 5302  
<211> 439

<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071e10a1

<400> 5302

acctttcttt tttttgtttt ttaacaaagt tttattctag ttctgctaga tcctagggg 60  
aatccaggga gaatagacct gacatcaaga acagaaatca aaattataga taattgacaa 120  
atattacttt aaagccaacg cctcgattac ctcaattgct acaccaattg aagattcata 180  
ttatgatgtg gttaaacttg ttaggccagg aacagatatt gctattctat ccattaacaa 240  
ataacaggcc cgttattgcg cacgaatttt tttcaaagac tgctgcatat aaaactcaag 300  
cccgaattct gactttgctt atgactcaat gagagaactt tgctactaac ttgtcaacat 360  
gggtaacgat atcatctacc ctgggcccg tggaactct tttgtgaacc atccttgaca 420  
agaactgatg aacaacttc 439

<210> 5303  
<211> 542  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071e11a1

<400> 5303

aaaacatctc aatgggttct tcttttatta caacatcgcc cgcaaccatg accatggctg 60  
cgatcgtgct cctgttcacg gtctttgccg tttcctccgc cctagacatg tcgataatct 120  
cgtacgacag cgccacgcg gacaaggccg tcacgttgcg caccgaggag gagctgatgt 180  
ccatgtacga gcagtggctc gtgaagcacg ggaagggtga caacgcgctc ggcgagaagg 240  
agaagcgctt ccagatcttc aaggacaacc tgcgattcat cgacgaccac aactccgcgg 300  
aggaccgaac ctacaagctc ggactgaacc ggttcgctga tctcaccaac gaggaatata 360  
gggccaagta cttgggaacc aagatcgatc ccaaccggag gctcggaag accccgagca 420  
accgctacgc gccacgtgtc ggcgacaaat tgcctgattc cgttgattgg aggaaggaag 480  
gtgctgttcc tactgtcaaa gaccaaggag gctgcgggag ctgttgagca ttctcagcaa 540  
tc 542



<210> 5304  
<211> 490  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071e11d1

<400> 5304

gaattccaca ttgtaagcaa attaaaaatag catgtgaata tgggacaaat ccaaattattg 60  
ctgctgcatt gtcacataat ctacagaacc ttgaaaacta acagcaatca aatatgttcg 120  
ccatttggaa tttgaatata aatacagtgc atcgataata taaccctatg tacagagcca 180  
atgtctgact gaaatttgat acagaacatt atctatcttg tatcataata aaatggtaaa 240  
gatctttatg ttacgtgcag cattatgtga agaaggggga agtgcattca gctggtgctt 300  
tagcccttcg acttcccttt tacttcatca ttggctcctt ctgcacgttc acatttcctt 360  
aaactgctta agcactgctg acctgttct tacgtccgaa ggtccaatgg ggtttcgctg 420  
gagtacgctt taatgccttc actcccaagg ggttgttctt gtcctgaga caagttccag 480  
cgtaagtgtt 490

<210> 5305  
<211> 570  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071e12a1

<400> 5305

gaaaatcact gaattttccg tgctgttttc tccccactga cacaagttgt agttttttaa 60  
gagtatatta tgtacctaaa ggatttcaga ttttgagttc atgagagcaa tgtaaaagtg 120  
aagttctgaa ctgttaacaa gtttggaata ctttgtgcag tgcagtgtgt taagatggaa 180  
gctatgttca tcttcagaag cagtcattga aaccagaaat tgaagatttg aagtgatttc 240  
ttcttagaaa tcagaatact agaaaatact agcacagaaa taatgtggga tttcctcctt 300  
tttttacatg agttttgtct catttaggag aaaaaaatgc aagttctgca tatttcattg 360  
agcaattttt gaacttgtcc tcgtattcta gattctgcac gtttagacaa tcagaaatcc 420  
tgagccaatc catggctttt cattggttat ttttaattgt tgtgtcctca ggttctttaa 480  
atatcagcat tatttataga accaaatgat gaatttcctg ggtatagcct ttcccataac 540

catatgcttt atcgcttttg tgatatcgaa

570

<210> 5306  
<211> 346  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071e12d1

<400> 5306

atagggcacc aagggccatt ttttataaaa atatcccaat tctacttatt aattacaacc 60  
cttctaataga ctataggaca ttactattac ctatgctaca aatgggccta aaattagatt 120  
actgcaatat acaatacaca ttatatatat gctatatgtt aatgaatgca tgtatatcaa 180  
tctttctttt ggggaactag agatcaaata cataactgta gaaatggaat atggaataat 240  
agcaactcta tattcatacc gagagacctg atttcttcaa taacaacatc gcctgaaact 300  
atacaatggc ccacaaacta tgataccac atcaacaacg ccccca 346

<210> 5307  
<211> 434  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071f01d1

<400> 5307

ccccccgaat taaaaaaaaa aaattttccg cccccaaaaa aaaaaatttt cccccaaaaa 60  
aaaaaaaaaa cccgaaaaaa aaccctttaa aaaaaagtta aaagggcccg gaaaaaaaaa 120  
cccggggggc cgttttttgg aaacctttgg aaaaaaaaaa aaaaaaaac cccccccctt 180  
ttttttggcc caaaaaaaaa cccaagtta aaaggctcaa tttgggaaac ccctaaaacc 240  
aaaagggggc ccctaaaaaa aaaaaaaaaa actccccccc ccgggggggaa ttccccaaag 300  
gggggggaaa aaaaaaaatt ttcccatccg gggggggcaa aaaaaagggg gcccccaaaa 360  
ttgggggggg ggggaaacc ttcaaaaaac cttttttttg gaaaaataat aggggggggg 420  
aaaaaaaaagc cccc 434

<210> 5308  
<211> 703

<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220071f02a1

<400> 5308

tgccatttct acatgatcat gcgtctgatg cagtatagca tattaanntg gtttaananc 60  
ataaanaagc ataaaaaata taaatttaat atattatata tacttatact tatttttttt 120  
ctttttttta tttttttatc tactattttg gggtagctgg ttttctcaa ccaccatggg 180  
agattctaata cggatttcgg ttcaccgtgt tctcggcgaa ggcttagttg ctgatgtggt 240  
gttgtggaag aattggcgtg gagcgggtgc ggtgctcgta tctgccacca cattgtggta 300  
cctcttcgag cgtgcccgtt acaatttctt gtccttcgtc gccaatgtcg tgttgcttct 360  
cgctcgtatt ctctttttct gggccaaagc tgctaacctt ctcaatagac ctattactcc 420  
tgttcccgat ctggccatgt cggaggaaac tattgccagg gttgctgatg cactgcatat 480  
ttggttgaat cgagccttgt ctgttgaca tgacatagcg attgagagga atctgctgct 540  
ttgcctccag gttgatggtg tattgtgggt aatatcttac attggcagtt tgctcaactt 600  
tttgactttg atctatatct gtgttcttct tagcttgtct ttccctgtat tgtatgacaa 660  
ataccaggac caatttgatg gcctgctaag tgtgatacat ggg 703

<210> 5309  
<211> 319  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071f02d1

<400> 5309

acttgcccc ttcattatct gggttgtact gcttctcaat gagctgctgt gaccccaaaa 60  
catggcaacc gccatgctcc agcttacgga aaggacctat gacgaatgct ggggtcactt 120  
cggtaactcg gcagcactca cacatatctc acgctccagg gccggtgcc aattcatata 180  
cagacattgg tggagtcttt ttgcggcgca actctgtgaa caaacgcgat tggtagccac 240  
gagagagggt agagcctata cagcgtctat tataactccc agaacgctga ggctcagccc 300  
accagagagc tctcttcac 319

<210> 5310  
 <211> 540  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220071f03a1  
  
 <400> 5310

tatctttagt gtttctagct cctcagagaa atcaaaggct aagacagggc agcagcagta 60  
 ttctttctcc cattcacgct gacccaatca ttctttacat ggtgctcatc cgaacttaga 120  
 tatacagaaa attagttctg gtaattccct tagtgtcaat acttcccag agtggaatgg 180  
 tgtctcttca gctgcaaagg acaacttaag tcccaatagt agagttgcgc ttagtccagt 240  
 tggtgccact agatccactt ctctatctgc tccttctaag aacttaggta acaattcaac 300  
 cccttctgca tggataacat tggagaagag gcctactttt cctatccaga gcaggaatga 360  
 tttcttcaag aatctttcaa ggaagagttc cttggaaaaa ccttgttctg atgctttgtc 420  
 tattgacatg tcttgtgctt tggagaattc tgaagccagc atgaagaatg tctctagttg 480  
 tccattctg gagtctagag atgcttcntt agtggatacc tctggtttga catgttgact 540

<210> 5311  
 <211> 489  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220071f03d1  
  
 <400> 5311

aagagaaaaa agaactctca tactctatctt cttctttttt gtttcaactgt atactattct 60  
 actagcaggg tcctattaaa caacaggaag ttcatctttg gtatcttcat tttctcctca 120  
 tgctcagaaa ttatatccag catgattatt tcaactagttc ttagtaaaga gtctatgctt 180  
 tgctgtata ttagtagctt ttttctgata gagctttcca attaaccaaa aggaaaatct 240  
 ccttatctaa cagccacctt cgctaattt taacactcat gccctaag agatatattt 300  
 aaagcacatt ttttgtctca tcaacttcat attccaaatc ctgcaatata ataattctta 360  
 attctaaaca taactcatgg agctccaaca catccccag cattcaagtc aagtggctga 420  
 gtaatgaata atgtttttga cgtatatgtt ggagaatatt tgatcacagt ttcaatttca 480

tgtactttct

489

<210> 5312  
<211> 640  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmfl02220071f04a1  
  
<400> 5312

caaaaggcct tcgttgagga ggtcatggag cttgtggagc tctactccgtt aagtggagca 60  
cttagtggggt gataccatga gaaatgcatg gactgacgac tgagcaacac acaaagattg 120  
actatagctg ttgaataggt cgcccaatcc ttttatagtc tttatggatg aaccacttc 180  
tggattggat gcccgggctg cagcaattgt gatgagaact gtgaggaata tagtgaatac 240  
tgggcgaaca attgtgtgca cgatccatca gcctagcata gacatatttg aatcctttga 300  
tgagcttctg ttcatgaaaa ggggaggaga gctcatttat gctggtccac ttggccgtaa 360  
accttgcgaa cttattagtt atttcgaggc aatcgaagga gttccaaaga tcagggtccgg 420  
atataaccct gatacgtgga tgctggaggc tacttcttca gttgagaaaa cagactgtga 480  
gtggactttg cagaaattta ccgaaaatca agtttatatc aatataacct acagtggttg 540  
aaggttgagc agccttggtg aattcacaag aatgcttttt ccacaagtat gccggcatct 600  
ttgagcagta ctacttgtaa tggagcaaat ctttgtactg 640

<210> 5313  
<211> 444  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmfl02220071f04d1  
  
<400> 5313

gtcattacca accagtaatc tgatttcatg ggtaacagag gccctataaa ccaatagtac 60  
gtcactttac aacaatttgt ccctgaatta tgtaaaacaa aaataatttg gataatgtat 120  
tcttattagt ttacaaaccc taaaagcaca ctagggtat gctataatca tatcgctata 180  
cagatggcac gcttattttt atgaggatc gaagatccaa catacaattt ggtttcaatg 240  
tctctagtgg ctagcgagtc ttatcccatt atctcctttg gaaattgatg gatttaattg 300

caaaggcaaa tataattgca aaaaatatgc agaagccagc caccataaca gcagttacgc 360  
acaagaaatc atgcctgtgc ccaaacacgt gattgagata cctcttttat aagcatcgag 420  
tttcttttat agagcttccc taaa 444

<210> 5314  
<211> 541  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071f05a1

<400> 5314

ctcgcaagca aaattaaaga atttcaggcg aggagaaaga tggaggggaa ggagcaggat 60  
gtgtcgttgg gagcgaacaa gttccccgag agacagccga ttgggacggc ggcgcagagc 120  
caagacgacg gcaaggacta ccaggagccg gcgccggcgc cgctgggtga cccgacggag 180  
tttacgtcat ggtcgtttta cagagcaggg atagcagagt ttgtggccac ttttctgttt 240  
ctctacatca ccgtcttaac cgttatggga gtcgccggg ctaagtctaa gtgtagtacc 300  
gttgggattc aaggaatcgc ttgggccttc ggtggcatga tcttcgcctt cgtttactgc 360  
accgctggca tctcaggggg acacataaac ccggcggtga catttgggct gtttttggcg 420  
aggaagtgtg cgttgcccag ggcgattttc tacatcgtga tgcaatgctt ggggtgctatt 480  
tgtggcgctg gcgtggtgaa cggtttcgag gggaaaacat atacggtgcg ttgaatggcg 540  
g 541

<210> 5315  
<211> 419  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071f05d1

<400> 5315

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tacacatgag ttgggccttt tccaacttaa aagccgagga taacattggc ccatgacgcg 120  
acacatgccc cacctaataa tcataatttt acatctttac atacaaaata caaagacttt 180  
tttttttaaa aagaagaaaa gagataaacc gatcatttta atgaaatgaa accaaaaccc 240

acaaacattg gcttgatttt tgggtggtggt gttggcccca acttgattaa acatgaaccg 300  
 tttgattgaa tcacttggac ttgaagggaa tggccctgat tacaacctgg tggtaaagtg 360  
 ctgcaagaac tgcaccgatg aatggtccca cccaaaagat ccagtgttca tcccaacca 419

<210> 5316  
 <211> 518  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220071f06a1  
 <400> 5316

ctcgcaagca aaattaaaga attccaggcg aggagaaaga tggaggggaa ggagcaggat 60  
 gtgtcgttgg gagcgaacaa gttccccgag agacagccga ttgggacggc ggcgcagagc 120  
 caagacgacg gcaaggacta ccaggagccg gcgccggcgc cgctggttga cccgacggag 180  
 tttacgtcat ggtcgtttta cagagcaggg atagcagagt ttgtggccac ttttctgttt 240  
 ctctacatca ccgtcttaac cgttatggga gtcgccgggg ctaagtctaa gtgtagtacc 300  
 gttgggattc aaggaatcgc ttgggccttc ggtggcatga tcttcgcctt cgtttactgc 360  
 accgctggca tctcaggggg acacataaac ccggcggtga catttggggt gtttttggcg 420  
 aggaagtgtg cgttgcccag ggcgattttc tacatcgtga tgcaatgctt ggggtgtata 480  
 tgtggcgctg gcgtggtgaa gggtttcgag gggaaaac 518

<210> 5317  
 <211> 393  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220071f06d1  
 <400> 5317

atatgactct ggggttattt ttgattttgc aaattaaatt acacaatcac agccgtacat 60  
 tacacatgag ttgggccttt tccaacttaa aagccgagga taacattggc ccatgacgcg 120  
 acacatgcac cacctaataa tcataatttt acatttttac atacaaaata caaagacttt 180  
 aatttttaaa aagaagaaaa gagataaaca gatcatctta atgaaatgaa accaaaaccc 240  
 acaaacattg gcttgatttt tgttgggtgtt gttgttccca acttgattaa gcatgaaccg 300

tttgattgaa tcacttggac ttgaaggga tggccctgat taccacctgg tggtaaagtg 360  
ctgcaagagc tgcaccgatg aatggtccca ccc 393

<210> 5318  
<211> 611  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071f07a1

<400> 5318

gttcttctct tcctcactcc ttttttcaaa cctcgaaacc aaacaagggt tttcttctct 60  
ttccccccct cctgattctc cattttccct ctatctcaca ctccaatttt ctccctcctt 120  
tcatattgct tttcttctct gattctcacc aaaaccattt tttcgtcttc tgtattcaag 180  
ttccctggaa ttctcaattc gggggcgtgt tcgtttctac acatgtttgg atgaagagac 240  
gcaacaggac cctatgtgtt gttgttctcc ggtaccgatg attgtttatg gctgaaagct 300  
gctgacttgg ttactgggtt ctgctgaccc aagcggtcga agaagggtag ggggaggaat 360  
cggagtgatc gctgaaaaag tgggggttag ggtttttggc ggggtctgct caaatggctt 420  
atgcactgga gttgctgaga ccacagctat gcattgacag ccttatggac aatctggctg 480  
cccaagatat ttgcagccat tgccattgga attgctctcc tagaaaggtc cctaccgctc 540  
ccttgctgct gtgcctcctt tcttttgctt ttggccttcc agtccaattg ttgcccttgg 600  
attttttgggt t 611

<210> 5319  
<211> 429  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071f07d1

<400> 5319

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atcttctctc tctgtttaac aaataaaaac gttgaaagtt taatacattt gaccatgata 120  
aaatttgtaa ggaaaaaat atatcaaaca tgagacatag aagaagaaaa acttcacaat 180  
ttttttgaca gaatgctaata tggatacgga caatcctaag aactgtgttt ttgaacaata 240



acacttgaat gtgaatctgc ttttacaatg tccaaggcac tagctatfff taggatacta 300  
aacatattcg aggggaacct atttagagca cactattagt atacacttaa cggaacata 360  
gcctcttcaa atattatact gcttgcata tcatggctg gaatccatag cctttgattc 420  
atcttaacc 429

<210> 5320  
<211> 576  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220071f08a1

<400> 5320

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atggccacta caacacaact tcacttacc cctggattca gattccatcc aacagatgaa 120  
gaactcgtca tccactacct ttgtcgcaaa tgcgcttcgc aacatatcgc gggtcccata 180  
atcgccgaaa ttgatctgta caagtacgac ccttgggacc ttccaggaat ggctttgtac 240  
ggagagaaa agtggtatfff ttacacgac agggaccgca agtaccgaa cggttcgcgg 300  
ccgaaccggt ccgcgggaac cgggtactgg aaggcaaccg gagcggataa accagttggt 360  
aaaccgaaac cggttgggat caagaaagcg ttggttttta cgctgganaa ggcaccaagg 420  
gagagaaaac taactggatc atgcacgagt atcgtcttgc agacgtggat cgttccgttc 480  
gcaaaaagaa cagcttaagg ctggatgact ggggtgctgtg ccgaatttac aacatgaaag 540  
gtgcaatttg aaaagcaaca acctaccacc accgag 576

<210> 5321  
<211> 287  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071f08d1

<400> 5321

ctcttgtcta ttattaaatt tgcaacagac cccttatccc aacaaaaaa caaccaacac 60  
gaaaaatttc ccaccgggac atacttaacc ccaacaaggg gcggccattt taaacaaacg 120

cgtacccaaa caataacaaa taaatccgcc cctgctcaaa cacagaccaa ggctgtgggt 180  
 cccccagtc acctttaaaa ttccacgggg aaccccccca gagcatacta tttttagaca 240  
 cccaccggaa acatagcctc ctcaaaaagg cccctgcttg caaaacc 287

<210> 5322  
 <211> 349  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071f09a1

<400> 5322

gaggacaaca ctaacatgca ttgatttaaa caacttctca gctagcccaa tttgatggat 60  
 cagtattacc accgtcatat ctgccaatgt ctgaatcact tgctgaccct ccggcaacat 120  
 tttgcgata taattgccag aaaccgtcgc aagaccgacc aatagttggc ggaggaagt 180  
 tgagccttgt gacaaaggct gttccacctt ggacataaat atgaccaagt ggttgccatg 240  
 gatgctttca atactgacag gcgactggag ggggaattaa cactgcagt tagtagaagg 300  
 aatagctgat tcttgaact atcgttggag atttgaggag gcacgatta 349

<210> 5323  
 <211> 427  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071f09d1

<400> 5323

gtactcaatc attgtgtccc tcaataaatg gcttagcatt ttcacatggg gccgtttcta 60  
 agaggaatca tagcagtaca atgggtcaag gagcataggc gctatattgt gtacacagat 120  
 taccacgctg agatcgact tgagacataa ctgcctttca gactcgatct ctgtttatga 180  
 cgcgtaatgt agtgagggga aatggctccc ttcatgcagt aaacatcact ggtcacacca 240  
 acctgggttaa gtgatagtct gttcagtatt gctgaatatg cccattagag aggagaaact 300  
 gctcaatggg agcagacaac tgctctgccc attgccaagg atgtcctagt gggacacatg 360  
 ctgctaccat ctctgccagg ggcgcatgtg ggattgccac tactactgca ctggctattc 420  
 ccggatg 427

<210> 5324  
<211> 239  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071f10a1

<400> 5324

gcggacaaca ctaacatgca tttattttaa caacttctca catagcctca ttttatggct 60  
gactattccc agcgtcatat ctgccaatgt ctgagacact tgctgacct ccaagctaca 120  
tatttcgaac aatgaatgtc gtaaaccgac gtaggacact tcaagagttg atggaggaag 180  
tgttaccctt ggctcaaagc ctgctacatc ttggacttac atgaggccaa gtttttgcc 239

<210> 5325  
<211> 410  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071f10d1

<400> 5325

gtactcaatt aatgtgtcac tcaataaatt gattagcatt ttcacatgaa gccgtatata 60  
tgaggaatca tagcaataca gaggtttaag gggcattgga gctatgatat attcaaagat 120  
tactatgtaa agattgtagt tgagacataa cttcctttct gacttgatct ctctttatct 180  
tccctattgt agtgagtgga aatggccttg tccatacagt aaacattttt ggaatcttaa 240  
acctgcttaa atgattttct atacagtatt gctgaatatt ctctctagat aggagaaaact 300  
cttcatttga agcagacaac tgctctgacc attgccaatt ttctcttaga tggatacatg 360  
ctgctaccat ctctgtcagg cgagcatctg ggattccac aacaacaaca 410

<210> 5326  
<211> 578  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071f11a1

<400> 5326

atcggaaattc tcccaccacc accccttggg ggcgcgcctc aacaacggcg ccttcgggtg 60

ctgccccggct tccgtgatcg ccgtgcagcg cgagtggcag atgaagaacc tccggcaacc 120  
ggaccacttc tacttcaacg acctcaagaa gggactcctt cactccccga ccatcatcaa 180  
gaacctcgtc aacgccgaac acgtggacga gatctccctc gtcgacaacg cctccaccgc 240  
caccgccatc gtcctccagc aagccgcctg ggccttccag gaagcaaaat tccagaaagg 300  
cgacgtggtc ctctgtctcc actacgccta cggcgccgtc aagaaagcca tcgaggccta 360  
cgtgggtgcgc gccggaggca ccgttatcga agtccccctc cccttccccg tcacctccaa 420  
cgacgacgta gtcaacgaat tccgaatagc ccttgagagg ggcaagtccc gaggcaacag 480  
aattegttta gcggttatcg accacgtgac ttccatgccc agcgtgggtca tccccgttta 540  
ggacttggtt aaaatctgca gagaggaggg tgtggagc 578

<210> 5327  
<211> 401  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071f11d1

<400> 5327

gaaacaacaa ggggccactc aaatacttgg atttatagac catgaaattt tcaacagacc 60  
gggcaaaata gcgcaatcag caaagggcaa actcaacatt tgcaaatagt atcccacata 120  
taaaatgggc caatttggtta ttggggagtt aattaaaact aagagcagag cataggctac 180  
cccaatttca agccgaaaga agagccccag taaaccattt ttgcacaagt tgattaaccg 240  
gattcctgaa cttataatag tcctcaacct tggttgaaac ctgacgagaa attcgggcat 300  
acgcagtaac agagcccttt tccccaccac gaaaataaat tgggacttca acattaaatt 360  
catccctcaa acgggtccta agcttttgag cctcagaggg a 401

<210> 5328  
<211> 222  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071f12a1

<400> 5328

agcacctgc taacgccatc atcttttgtc ggcgcgtcga acctacgcat gctattgatg 60

ctgacctgat tatgggagct ctcaactata ctggtgtgta tagaccaatg tatggcaacc 120  
gcaccactat tactttggcc acgttacaac aggactcata cagtctcgca ctattagaag 180  
gagcctgggc tgcacgaac acttggaac gatctgcctc gc 222

<210> 5329  
<211> 334  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071f12d1

<400> 5329

aaacaacaaa tgtccactta aatacttga tatatagacg gggaaaggt caacaaaccg 60  
ggcaaaatac ccccatcaaa aaaaaggga ctcaacattt gcaaaaagtc ccccatatat 120  
aaaatggacc aataagttat tggggagcaa attaaaacta agagcagagc attggctacc 180  
ccaatttcaa gcccaaagaa gagcacaagg gaacccatct ggcacaagtt gataaaccgg 240  
attcctgaac ttataataga cctcaaccct gttggaaacc cgacaagaaa ttcgcgcata 300  
cccaataaca gaggccccct tccccaccac aaaa 334

<210> 5330  
<211> 544  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071g01a1

<400> 5330

agaagcaata agatgaaaat gatagtgtt gttttgtttg ttgctacagt tttggttagca 60  
tatgaatgcc atggctcaga ctaccagaag ttccctctcc aatgaaaac tgggtttggt 120  
gggcaataca gcaatgaggt ggcattgtcc agttggaggc ttggcgtgga agcaaaacaac 180  
gtagtcaagt ggcaaaactgt tctgcagct tgcggagagt acatagctga ctacgttcta 240  
ggagaccaat atagatcaga ttccaaaaca gttaaccaac aagcttattt ctatgctaaa 300  
tccctcaaac tcaccaacaa agatgtcttt gtcttggacg ttgacgacac tactctctct 360  
aatctccagt attttgctaa ccatggattt ggtgtggaac cacacaatac gacggcgttt 420  
aagaactggg ttcttgatgg cgaggcattc gcaactgccag agactcttaa aatgtacaac 480

aaactgttgg ctctcggcat caagattgta ttcttatcag aaagaccact gagtctaggg 540  
gatg 544

<210> 5331  
<211> 506  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220071g01d1

<400> 5331

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gccctacat gactaagtaa taatactcag gatcttattt catagaaatt aaggagcaac 120  
ttagaggctt gatttgagag cttaatcata gtacaaggga ttaggcagct taaaagtctt 180  
agtccttttg ttgcttccca ggaggtcact ccattgggtct ccaacgtttc caatgattct 240  
gtatccctcc ttctccagct tctctctctc agctgatttg tattcaaagt ataacttacc 300  
agagtactca gatggatccc tgagaattaa cttctcccat gtgttgaatc caacctcctt 360  
taagttcttg gctgttacat cccctagact cagtggctct tctgataaga atacaatctt 420  
gatgccgaga gccaacagtt tgttgtacat tntaagagtc tctggcagtg cgaatgcctc 480  
gccatcaaga acccagntct taaacg 506

<210> 5332  
<211> 550  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071g02a1

<400> 5332

agcagaagaa ggcaaagata gtggcagagc tccaagctgt gaagcacaac agtggcaagt 60  
cctacaatca gttagcggag gagactggac tcaccaacgt ctatgttgct cagcttctca 120  
ggagacaggc tcagctcaat ccccaaactg cccctctact tcgggcagcg ctgcccgacc 180  
tgccccaaga ccttgtttct gagatgatga gacccccctt gaggtcttat gaccctaact 240  
tcatccaaga cccactgtc tataggttga atgaagctgt tatgcatttt ggggagagca 300  
tcaaagaaat aatcaatgag gagtttggtg atgggatcat gtcagcaata gatttctact 360

gctcggttga taaaattaa ggagtagatg ggaaggatcg tgtggtattg acatttgatg 420  
 ggaaatattt gccacattca gaacagaaat ctgagcacat ggtttcaaga acaaggccac 480  
 tgggaaaaca gtgagtatct tcattggagg accaactacg caatcttcaa caccagtcta 540  
 cctgcacatg 550

<210> 5333  
 <211> 542  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071g02d1

<400> 5333

acaatacaag cttctccatc ttataattaa ctggcattaa aatacatggt gcaagtgtca 60  
 tgaaatatcc aaagccataa aacattgtat aaatatgcat ggccaactac tttttattat 120  
 ttataaatct taaacacttt tatttttctc ttccaatggt tttctataga caacacaaaa 180  
 tagcactgat caaatacaac ttgtggttgt tacagatcaa tgataattca tgtgcaggta 240  
 gactggtgtt gaagattgcg tagttggtcc tccaatgaag atactcactg ttttcccagt 300  
 ggcccttggtc ttgaaaccat gtgctcagat ttctgttctg aatgtggcaa atatttccca 360  
 tcaaattgtca ataccacacg atccttccca tctactcctt taattttatc aaccgagcag 420  
 tagaaatcta ttgctgacat gatcccatca ccaaactcct cattgattat ttctttgatg 480  
 ctctccccaa aatgcataac agcttcattc aacctataga cagtgggggc ttggatgaaa 540  
 ta 542

<210> 5334  
 <211> 665  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220071g03a1

<400> 5334

tgttactctg cgcagtcaga tcagtataca gttatngnnt nnnncnnnnn nccnnnnnnn 60  
 nnnnnnnnng nnnnnnnnng nnnnnnnnnn tttnnnnntt gacacctgat ttcagttctt 120

tttcttctca ataattatta ttgtatttg taaacacaca ctatcaaagc aaatgggggtg 180  
 ctcatctccc gggttgaacg cactttacga ctccgtgaac ggcggagggtg atgtttggat 240  
 caacgagaac cgtttccgca tctgtgcgca gctcggagaa ggtggcttcg cctacgtcta 300  
 cctcgtcaag gaggtccccg acgactccgc cgccgctggc ctgcgcaaga agctcaaagg 360  
 ctctctcat ctctccgatg atggaactta tgctatgaaa aaggctctca ttcagaacaa 420  
 tgaacagctg gagttgggtca gggaggagat ccgtgtttca tctactgttca atcatcccaa 480  
 tctgctcccg cttcttgagc atgcaatcat ttctgtcaag cctacccatg aaacatcttg 540  
 gaaccatgaa gcatatttat tggttccagt tcatttggat ggaacattgc tagacaattg 600  
 ccaaataatg aaagccaaga aagaattcta ttccacccta gatgtgcttc aaatatttcg 660  
 tcagc 665

<210> 5335  
 <211> 567  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071g03d1  
 <400> 5335

aaataaatga tattccattt atgctgataa attctgaaga cacagggaga ttggccattt 60  
 cataaattac aagaaacaaa attatgtaga aatgacaaac aatactttaa agccaacgcc 120  
 cgactaccta gactaccacc aaaatcgaag atacatataa atatatgggtt aactccgtca 180  
 ggcgaggaat tgctattgct tttctatcca ttaacatata actggacggc aaatgcacac 240  
 gaattttttt aaacgactgc aacataaaaa tctcaagccc cacttctcac ttccatagta 300  
 actcattgag agaacttcgc aactaacttg tcaacatgga taatgatatc atctatcctg 360  
 ggccgcatgg aagccgttgg ctgaagcatc catgacacga actgatgaag agcttctgga 420  
 tatggagggt tgggtcctgc tggccatttg acctgtgcat ttacaatagc caattgcagg 480  
 cttccaccag actctccaag tgcatttca aatggagata ccccatatcat tattgcatat 540  
 aatgtgcatc ctagcgacca aatgtca 567

<210> 5336  
 <211> 556  
 <212> DNA



<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220071g04a1

<400> 5336

cttttgaaga ttgtattaca tgggctaggc taaagtttga agattatattt gctaaccgag 60  
taaagcaatt aattttatact tttcccgaag atgctgcaac tagtactgga gctccttttct 120  
ggctctgcacc aaaacggttc cctcatcca ctgcaattct catcctctga tctgggtcat 180  
cttctgtttt tgatggcagc ttctatatta cgagcagaaa catttggtat tcctattcct 240  
gactgggtga agcatcctaa gaagttggct gaagctgttg atagagtgat agtacctgac 300  
tttcagccta agaaagatgc gaaaatagtg acagatgaaa aggccaccag tctctcatct 360  
gcgtctatag atgatgcagc tgtgattaat gatttaatcg tcaagttaga ggggtgccgg 420  
acaaagctgc aaccagagtt caggatgaaa ccagttcagt ttgagaagga tgatgataca 480  
aactaccata tggacctgat agctgggctt gcaacatgan ggcacggtac tacagcatct 540  
ctgaagtgac aagctg 556

<210> 5337

<211> 347

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220071g04d1

<400> 5337

aacaaacaag gaacgaaagt tgcttttcaa ttcatatatg aaaggggata tgggcaacag 60  
gggccccttg ggggtacccc ttttgaatat gaagctggga gggccaacat tttttgggtt 120  
ttaaactaaa aataagtctc ggccccccct ggtggggcga ccaccacccc cttaacggaa 180  
ataggggggtt ttttggggga tggcaatggc attatcctca tcctcctcac aggcaacaac 240  
aacatccaag tgaccacggt aagaaggttt ttccaccttg gcccttttcc taacccaaaac 300  
caccattttt ttggccatgc gttttctgtg cctaggggaac atgcttt 347

<210> 5338

<211> 634

<212> DNA

<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071g05a1

<400> 5338

tcttatacag ccttctcaat cagtaaacia taangggtan nggcgaaaga ccaaagaag 60  
aaaaagaaga aaaagaaaaa aaaaaaaaaa atttttaaaa tttaagtata ttaaataatta 120  
ttaaaaattg ggtaatttga ttttattatt aaaatattat aatatataat atatatatat 180  
aatatatcta aatcagatga cattaatata aaaaaatttg gcggagggtgc agatataaca 240  
caggctttga caaaagcttg ggaagaggca tgcgcagcaa caagtgaag caaaattgtg 300  
attcctggtg ggtcatacia gatggaagca gttgatttaa aaggctccttg catggctccc 360  
attgaaattc agtttgatgg cacacttcaa gcaccggctg acccgaatgc actcgacggg 420  
gctgatgaat ggctcaaagt acaacatggt aactttttta ccttatcagg taaaagtgtt 480  
tttgatggtc aacgtgcaac tgcttgaaa caaatgatt gtggaactaa caagaattgc 540  
aagaaacgtt ccaagaattt tngtttcaat ttccctgaca attctatggt ctcgacata 600  
acttctaaag atgcaaaaac tttcatgtaa atgt 634

<210> 5339  
<211> 366  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071g05d1

<400> 5339

aggaaaaaaa aagggaatct tatatatgct cttgcacaag ggtttcgtat tgaataaatg 60  
cccttaaaca ttgacaacgt aagtatatac aaatgcttat tcactataga cttcaaatag 120  
gcctcattct caccttacat atttacaaaa aaaaaatctg gtcaaggaga atgtgtcaac 180  
ccaagtcttt taagctggac atgggcaagc aggagctttt cctgtaacta tgggcttgac 240  
attagcacat ttagcaacta ttggagctcc attgaatgta aaaacaacgt tatttaattc 300  
cacatcctca catgggacac ccttgctaca tataaaagac actccttcct tggtttttga 360  
agggcc 366

<210> 5340

<211> 622  
 <212> DNA  
 <213> Glycine max  
  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220071g06a1

<400> 5340  
  
 tgtctttttc tgggtgggtca cgtcgnagag cagtgaannn ntntnnncnna anaacaaaaa 60  
 aaaaanaaaaa aaaaaaaaaa aaaaaaaaaa aatanaaaat ttannaaaaa aaaaaaaaaa 120  
 taaaaanaaa tagganaana attaattgttt tattcttatt gctagctatt tctagtacaa 180  
 ctcaatcggg tgacattaat ataaaaaaat ttggcggagg tgcagatata acacaggctt 240  
 tgacaaaagc ttgggaagag gcatgcgag caacaagtgc aagcaaaatt gtgattcctg 300  
 gtgggtcata caagatggaa gcagttgatt taaaagggtcc ttgcatgggt cccattgaaa 360  
 ttcagtttga tggcacactt caagcaccgg ctgaccggaa tgcactcgac ggggctgatg 420  
 aatggctcaa agtacaacat gttaactttt ttaccttatt aggtaaagggt gtttttgatg 480  
 gtcaagggtgc aactgcttgg aaacaaaatg attgtggaac taacaagaat tgcaaganac 540  
 gttccaagaa ttttggtttc aatttcctgg acaattctat gggtcgggac ataacttcta 600  
 aggattagca aaactttcat gt 622

<210> 5341  
 <211> 409  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220071g06d1

<400> 5341  
  
 agtaaataga aaggcaatct tatatatgct cttgcacaag gctttcgtat tgaataaatg 60  
 cccttaaaca ttgacaacgt aagtatatac aaatgcttat tcactataga cttcaaatag 120  
 tcctcatcct caccttacat atctacaaaa gaaaaatctg gtcaaggaga atgtgtcaac 180  
 ccaagtcttt taagctgtac atgtgcaagc aggagctttt cctggaacta tgggcttgac 240  
 attagcacat ttagcaacta ttggagctcc attgaatgta agagcaacgt tatttagttc 300  
 cacatttcta catggtacac ccttgctaca tataagagtc actccttcct tgggttttga 360  
 agtgccctga atattcttga aggtaacctt gcttatcttt atttttgat 409

<210> 5342  
<211> 449  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071g07a1

<400> 5342

gattaaaagg ccggacttat ggttgccatt tactttcttg gtagtagatt gatgagcttt 60  
ttcgtgaaag tgtgttctga gccagcgtca ctactatctt tcattttttt aaaatattgt 120  
atgttacgtg cttgtacctt tgagtcttca taatttccat gtttttttac tttagggttg 180  
aggctctctc aagttattag catgtaatat ctctgccat tggtgtttat cttatataaa 240  
aatcttttgc agatttatgt tgttgcatga gaataattga tgaaacaaat caccaaactg 300  
ccatggctgt taacattttt gaggaagtat tagaaagact tccccgtgtt gctgctgttg 360  
gggatgtaat tgtgctttgt tgtgttgagg aatttctgat agtaacctct gtatgtagag 420  
atatgtctgt ttgctgcggt tttctggtc 449

<210> 5343  
<211> 400  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071g07d1

<400> 5343

gggaaaaaac atattaaaac cctgacatat ggcccagaaa acctttttta ccaaaattta 60  
cccttggaag aaaaactggc catttaattt ggccatttac atttaacta ccggttttaa 120  
aagccctgga agaaaacaaa aatgggtttt ccaggaattt tatgggcatg agcgcctttt 180  
atttttttta ccaaatata aatggatttt ttaggggtacc tataaacacg gcctacccca 240  
aattggcttt aaaaaaatgg catggattcc ccaatatttt gggggcaaaa attttaaagg 300  
gtctactggt ccaaacctca attttgggga ccaaaatgg cttgggacaa acccaaacc 360  
ctgggggatt ttctggagca tcctttaccc catttacc 400

<210> 5344  
<211> 559

<212> DNA  
<213> Glycine max  
  
<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220071g08a1

<400> 5344

gattaaaagg ccggacttat ggctgccatt tactttcttg gtagtagatt gatgagcttt 60  
ttcgtgaaag tgtgttctga gccagcgtca ctactatctt tcattttttt aaaatattgt 120  
atgttacgtg cttgtacctt tgagtcttca taatttccat gtttttttac tttagggttg 180  
agggtctctcc aagttattag catgtaatat ctctgccat tgttgtttat cttatataaa 240  
aatcttttgc agatttatgt tgttgcatga gaataattga tgaaacaaat caccaaactg 300  
ccatggctgt taacattttt gaggaatatg tagaaagact tccccgtgtt gctgctgttg 360  
gggatgtaat tgtgctttgt tgtgttgagg tatttctgat agtaacctct gtatgtagag 420  
atatgtttgt ttgctgtggt tttctgggtc tttcttgact ctcggttttt nttttttttt 480  
atatatacat gtttctcata ataaagactt aaaagagact ttaacattga ccactcaatg 540  
tatatgcatt cataggcag 559

<210> 5345  
<211> 283  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220071g08d1

<400> 5345

gggaaaaatc attttaaaaa cttggcatat ggacctgaaa acctttttta ccaaaaattt 60  
cccttggaag aaaaactgga catttaaatt ggccatttac atttaaacca ccggttttaa 120  
aaacctgga aaaaaacaaa aaatgggttt ccaggatttt tttggccctg agccccattt 180  
atttttttaa ccaaaaaata aggggatttt ctagggtacc cataaacacg ttctaccca 240  
tattggcttt aaaaaaagg catgggactc cccacatttt ggg 283

<210> 5346  
<211> 376  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071g09a1

<400> 5346

gatttttcgtg gagtggaaaca gaggggaact tgagagtttc ttgattgaaa ttaccgccga 60  
tattttttaa gtgaaagatg aagatgggtga aggggttttg gtggataaga ttttggataa 120  
gactgggatg aaggggaccg ggaaatggac ggtgcagcag gcggcagagc tttcgatagc 180  
cgcgcccacg attgcggcgt cgttggattg ccggtacttg agtgggttga aggaggagag 240  
ggagagtgcc gcggcgggtgc tgaaggaagc ggggttgagt gatgaattgg ggagggtaaa 300  
tgtgagtggg gtggatcaga agaaagttga ttgaatgggg cgatcaaagg tgcagaatgg 360  
ctctgcttat catctt 376

<210> 5347

<211> 411

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220071g09d1

<400> 5347

aatgatattc aatgatgaat ccaaccaatt gcaaaactat tacagcacat gtatcagtct 60  
cttgggatat ctaaaagtaa gttaatcatt aaaaaaatg ttcattgataa ccacttattc 120  
accatacttc taccacaat caatgatagg ggtttcaagc tccatactcc aaaggattac 180  
tcggtcactt ttgcagatcg aaattgttcc ttagtcctac cataatacac aggctccttg 240  
cctgaaaaag tgatgaaatt ccagccaaaa gcagatcctc caactacata tgtcccttgt 300  
gtctgagttt cttcaaccag ctgcttctgg aagccaggag ctggtggagt gagcttaatt 360  
tcagatggcc gtgcaaata tttctctact tgactctgct tgccatgttg a 411

<210> 5348

<211> 586

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220071g10a1

<400> 5348

cccggcagca gagcctggga aagctgattg ggaattggca ttggtagaga ctgctagcaa 60

tttgtcaaag cagaaggcag ctttaggtgg tgggttgat cctctattgt tgactggtat 120  
 gtatgatcaa ggaatgggga agcagcatgt cagcactacc caactgagtg gtgggagtg 180  
 aagcagtgtg gcattgccgg gaccagggaa gactccggtt ttggctctcc ccgccccaga 240  
 tggatctgtg cagccgggta atcaggatcc atttgctgca tcgctgagtg ttccaccacc 300  
 atcctatgtg caaatggctg atatggagaa gaagcagcac ttgcttggtc aggagcagca 360  
 ggtgtggcat cagtatgcaa gggatgggat gcaaggtaaa tctagcttgg ccaaactgaa 420  
 tggcgctgga tactatgccg gaggtcctat gcccatgatg ccttatggga tgccccag 480  
 taatggaatg ggaccttcaa ccgggtatta tcacactcct tactgatacc ccttttcact 540  
 tttttctttg ngtcatatct atagggtcgtt tcgtttatct tttact 586

<210> 5349  
 <211> 371  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220071g11a1

<400> 5349

cgaggaaggc ctggcttggt ttggttgttt ttaacacgcc cgtgaagtgt tgaggattta 60  
 agaccgtaca gaacattggt ttacctaaat ggcagtgtaa gcgaatgagc attctgtgta 120  
 caaataatcg ataaactatc tagctcaaag gtgggaacac aacttggtat ctacctattg 180  
 aaaatactca taggccacag gattttgaaa ggcctgagtg catattaaac aatgactgtc 240  
 catcttttct gaatttattc cagatttaat tgaaggattg caaacaatgg tgatcatcat 300  
 tgacatgccc atcgggtgat acaccaggtc ctaccacttg atgaacaaag tactgctcgc 360  
 aactggaca t 371

<210> 5350  
 <211> 160  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220071g11d1

<400> 5350

aaaaaataaa aattttatct cctaataata taaaccacca aaaacatgga aacccaaaat 60

aagtaaaatg aaaaccaccg ccaaaaaaaaa ccaacaaaaa aaaaaaaccc acctaaaggc 120  
 aaaaaaaaaat actgtgacga aaaaacccca cctggataaa 160

<210> 5351  
 <211> 305  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220071g12a1

<400> 5351

ctcgagccgc aaatttatag cgtgtttcgt gaaggaggct ccatggccac agaaggagaa 60  
 ggctttgttg cgtagctaata tggcaatgtc ttaaattggt ttaatgtttt cctgctactt 120  
 ttcttttgct tattcaaaat ggaattctag ctttgaggtc aaaataactct tactcttacg 180  
 gctgataact aggttgcaat tgcaggacaa taaggcctca tttgtcaggc cagtgtttgt 240  
 tttttcaagt ttagaagcag cccttacatc ttacgaattt attcatattt ttattttcat 300  
 atggt 305

<210> 5352  
 <211> 305  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220071g12d1

<400> 5352

accatatgaa aataaaaata tgaataaatt cgtaagatgt aagggtgct tctaaacttg 60  
 aaaaaacaaa cactggcctg acaaatgagg ctttattgtc ctgcaattgc aacctagtta 120  
 tcagccgtaa gagtaagagt attttgacct caaagctaga attccatttt gaataagcaa 180  
 aagaaaagta gcaggaaaac attaaaacaa tttaagacat tgccaattag ctacgcaaca 240  
 aagccttctc cttctgtggc catggagcct ctttcacgaa acacgctata aatttgcggc 300  
 tcgag 305

<210> 5353  
 <211> 637  
 <212> DNA  
 <213> Glycine max



<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071h01a1

<400> 5353

gaattctggt gatcgactga aacntnnnnn ntncnnnnn ncnnnnnnnn nnnnnnnnnn 60  
nnnnnnnnnn nnnttttnnn nttnnnnnnt nntttgtttt ttttntggc gnttaatgcg 120  
taagttataa tgtttctgac aaacatgatt gtttaatcct gttattatcg atgatacttt 180  
aaatattggt tagacgattc aatagtatat ttttgagac ctttttatga agttcatgca 240  
agttgttaga aaattccttt ctacaattag aatttgaaat ggtaatagtt gttattcctt 300  
atagtgtta ttctatggga gaaccaaatt ctcatctgtg gctactgact tgttgaattt 360  
tgggcagact aacatagcat gtaaataaat agatgacaaa agaataaat ttcttgtaag 420  
gatattatcc tatcacacta tcttcgctt aggacaatat tcttcagatg aaactttaaa 480  
tattcttacc ttcagatgat attgtcctat gacttggttg atttcttgta aagatgatac 540  
ttcaaataatt tttcagatgg attcaatagc aaaattctgg tggtttgcac atgaagttca 600  
tgaaagttgt tagaaaattc ttttctacta ttagaatt 637

<210> 5354

<211> 478

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220071h01d1

<400> 5354

agtagcaaac agtccttacc gcttgagggt tgtataaacc tgaatttttg cagaacagat 60  
tgactttggt gagagatctt atctcaaaaa atcaacatta ggaaaaagaa tagtcctatt 120  
gtgaactgta agatacctcc cctactttct ttctttttta cattggtagg aaaaacaccc 180  
atttttgcaa acaatataat tagtccacca acataatcat taatcaaaga atatctcta 240  
cactagctat atattatatt atgtgcaatg atttagctca cttcactgct gtattgttgg 300  
ggtttctgaa cctttttgct ggataaagtt agatttgaac atcaacacgg gttctgatgg 360  
gcttgagctt aattcctaaa ctctctgggg agaggagttc tgggtgctatg catgaatggc 420  
tagtggggct tgctggattt gaaccgttgc ttgatgagga agcagcatgt gtttgtct 478

<210> 5355  
<211> 523  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220071h02a1

<400> 5355

gtggagacca gcttgttcca tattatgctg acattcttgg agccattttg ccttgtatag 60  
cagataaaga agagaaaatt agagttgttg ctctgtaaac caatgaagag ctacgtgccc 120  
tcaaggcaga tccagctgaa gcgtttgatg taggagcaat cctctccatt gccaggaggc 180  
aattatctag tgaattggag gctactcgaa ttgaagcttt gcaactggata tccacccttt 240  
taaacaatta tcgtactgag gttttgcaat ttctgaatga catatttgac actctgctca 300  
aggcactttc agatccatct gatgagggtg ttctttagt tcttgatgtt catgcatgca 360  
ttgcaaaaga ctctcagcac ttctggcaac ttgttgtctt cctggtgcac aatttccggg 420  
tagacaattc ccttttggag aagcgtggtc ctttgataat tcgtcgactn tgtgtgcttt 480  
tgaatgctga gagagtctac cgtgaacttt ctacaatact gga 523

<210> 5356  
<211> 560  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220071h02d1

<400> 5356

gccagctacc ggancgtct cgattattcc cggtcgacgc gctcacctag tcgcggccgc 60  
cctttttttt tttttttttt tttttttttt tttttttttt tttttttttt ttgggttttt 120  
tttgggtttt ttattttttt tttttaaaaa aaacccaaaa ccccatata aaaaaaaaaa 180  
accacccaaa accccaccgg caaaaacacc aaccacagcc gcccaaaaaa aaaaaaaagc 240  
cccacccaaa aaaaaaaacc cccccccccc ccccggggaa caaaaaaaa aaaaaccccc 300  
ccgggggggg ggtgtctctt ccccccccaa aaaaaaaaac cccccccccc cccccccgt 360  
ggggggggcaa aaaacccccc cccccccccc cccgcgcgaa aaaaaaaaac aataaaccca 420

aaaaatcccc cccccaaaag gggggggccc acaaaaaaaaa cccccccggg ggggggaaaa 480  
 aaaaaaaact tccccccccc cccccctcca gaaaaagaaa gggccaccaa caacaacccc 540  
 cccccccaca gggggggggg 560

<210> 5357  
 <211> 477  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220071h03a1

<400> 5357

gcgaaatcag gtctacgaaa attacctttt tgacacctga ttccagttct ttttcttctc 60  
 aataattatt atttgcatta gtcaacacac actatcaaag caaacggggt gctcattctc 120  
 cgggttgaac gactctacg actccgtgaa cggctgaggt gatgtctgga tcaacgagaa 180  
 ccgtttccgc atcgtgcgcc agctcggaga aggtggcttc gcctacgtct acctcgtcaa 240  
 ggaggctccc gacgactcca gcgccgctgg cctcgtcatg aagctcaa at gctcctctca 300  
 tctctccgat gatggaactg atgctatgaa acaggctctc attcagaaca ctgaacagct 360  
 ggagttggtc acggaggaga tccgcgtgac atcactgctc aatcatccca atctgctccc 420  
 gcttcttgag catgcaatca tttctgtcaa gcctacccat gaaacatctt ggaacca 477

<210> 5358  
 <211> 530  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220071h03d1

<400> 5358

aaataaatga tattccattt atgctgataa attctgaaga cacagggaga ttggccattt 60  
 cataaattac aagaaacaaa attatgtaaa aatgacaaac aatactttaa agccaacgcc 120  
 cgactaccta gactaccacc aaaatcgaag atccatataa atatatgggt aactccgtca 180  
 ggcgaggaat tgctattgct tttctatcca ttaacatata actggacggc aaatgcacac 240  
 gaattttttt aaacgactgc aacataaaaa tctcaagccc cacttctcac ttgcatagta 300  
 actcattgag agaacttcgc aactaacttg tcaacatgga taatgatatc atctatcctg 360

ggccgcatgg aagccgttgg ctgaagcatc catgacacga actgatgaag agcttctgga 420  
 tatggaggct tgggtcctgc tggccatttg acctgtgcat ttacaatagc caattgcagg 480  
 cttccaccag actctncaag tgcattattca aatggagata ccccatatcat 530

<210> 5359  
 <211> 633  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220071h04a1  
 <400> 5359

tgtattacat gtgtagtcag tcagcatacc aatgaanaat aaacaaaaaa accnanaaaa 60  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaat tttaaaaatt taaaanntna aatnaaanatt 120  
 ctattattat atatggcttc ttcaccttcc tcagaaaaca aaaacctaga gggagtagct 180  
 ggtggtgccg gagagaaacc cattccactt ggtgagaacg ttctgcagaa gcatgctgca 240  
 ttctttgact tgaataaaga tgggtgtcatc taccatggg agacttttaa agggttgcgt 300  
 gaaatcggga ctgggggtttt gctgtccggt ggaggtgcta ttttcatcaa tgtgtttctc 360  
 agtcagagta ctctgtcccg aaagtttcca tctatacttt ttccaattga aattaaaaat 420  
 atccaacgcg gcaaacacgg cagtgcact ggagtctacg atactgaagg aaggtttgta 480  
 ccttcaaaat ttgaagaaat tttaacaag catgcacata cacatccaaa tgctttgaca 540  
 tatgatgagt taacggagat gataaaggca aatagagagc ctaaagattt ctcaggaaag 600  
 attggtagtg tggttgaaat gaaaattctt tac 633

<210> 5360  
 <211> 500  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071h04d1  
 <400> 5360

ataaaattgt attctttatt ttactgtata cgtgcttttc ggatgaattc aaacatgata 60  
 gatgacacat aagtttgact tgacatatac attattgatg aacataaaaa taaacagaca 120

ctttgaatat tgtgactaac ttactagcat ataaattcat aaaaataacc aattttgctg 180  
 agatcgacaa gtaacttctt cttttcacat acgtgtctga aaaatattac tacttctctt 240  
 tgcctgaaga gtgttggttt ttcagttgtt caaataaact tccatcgtaa acacctcgga 300  
 ttgtttcttt ctgcagtaat ccactcttat ctttagcaag tttgtaaaga attttccatt 360  
 caaccacact accaatcctt cctgagaaat ctttaggctc tctatttgcc tttatcatct 420  
 ccgttaactc atcatatgtc aaagcatttg gatgtgtatg tgcattgctg ttaaaaattt 480  
 cttaaatttt gaggtacaaa 500

<210> 5361  
 <211> 601  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220071h05a1

<400> 5361  
 atgcgtgcgt cagatcagaa natcagatac nnggtntaaa anccanattg naagctnatg 60  
 nacgataaag tgtgnagatt aattattggt attgtgttat atgtttttta tgatttctta 120  
 tgtatgtatt tttttattat ataggggtgtt atggaatttt ttttaattat tgtttgggtt 180  
 tgtgaggaga gcttgggtgc tgctctgaac gcaaattttc aagatagcta tgggtgttgt 240  
 atattttttt gtgaagaaga attagtgagc ataatgtttt ctgaaagatt gggggcagac 300  
 gaatctcatt gtcaagattt acagagtttg agtgtgtcaa agcgacttgt gaggagtgtt 360  
 agccagaagt ggaggaagaa gagtaacagg aattctgggg aagaagctga cgatgtaa 420  
 ggagtttctt taagatgctt aaatctgtat ggacgaagtg ggggctgcaa ggtaggtgct 480  
 gacactgggtg atgatttttg cgattcaagc agtagaagga gatctagtgc cagtgcagaa 540  
 ggaaagggat ataagccgat ttgtggcca gacgaaactg ctgtggattg cttttcatat 600  
 g 601

<210> 5362  
 <211> 507  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071h05d1

<400> 5362

tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt ttgggtttttt 60  
tttttttttt ttattttttt tttttttttt tttttttttg atttggtata tttttttttg 120  
gggaaaaaaaa attttatggg ggggggggaaa aatgtaaaaa aagagggggcg tgaaaaaaaa 180  
aaaactgcga aactggcttc aaaaaaatcc cccttccaaa ttatttgggg aaaaaaaaaa 240  
aggggggtttc ccgggtgggg gggcccaaaa aaaaaggggg gggacactaa aatttttgggt 300  
ggaaacaccc cccccgaag ggtctctggg ggggcgaccc cccccagatt tggatcaca 360  
caaaaaaacc cccctcgaaa aaaaaaaaaag accccggaaa aaatgaggcc cggggggctc 420  
ttttccccc cgaaaaaagg gggaaaaccc cactcccgg ccatcttttt tgtccaatcc 480  
cccccaaaa aattgtgttt tttttac 507

<210> 5363

<211> 618

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmfl02220071h06a1

<400> 5363

tggtcataat cgaagacttt aanggtaaaa caaaaagcna nnaaaaaagg aaaaaagagg 60  
naagaaaaaa aattttaaaa ttttaaaaaa angaaaagaa taaaaatggg aatttttgtt 120  
atttttattt aatattaaca tgatgaccct tagatcacag ccaccatgga gtgattctcc 180  
ggttacacaa tccacgaacc tactcttca ctttccgttg atgctcaggc tctgcagaac 240  
cagatagatg agcttgagc gttttctgac tctcctgctc catcagtaac aagggtcttg 300  
tatactgaca aggatgtttt aggtcgcagg tatgtaaaaa cccagatgga acttgctgggt 360  
ctatctgtga gagaggatgc tgttggtaac atatttggtc gttgggatgg cgttgaacct 420  
gagcttgctg cagttgcaac aggttcgcac attgatgcta taccttactc tggaaaatat 480  
gatggagtta ttggtgtttt aggtgctatt gaagccatca gagtcccga aaggtctgggt 540  
tttaaaccta gaagatcatt gcacgtcata ttattcacat cagaagaacc aacacgcttt 600  
ggaatangta gcttgga 618

<210> 5364  
 <211> 368  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071h06d1

<400> 5364

aaacactccg atgaaataaa attcaccgtt gtgactcctt ccacaggcag ttatcatttt 60  
 actcctgtaa aaagtgggtt ttatagaacc acttttcaaa ttgtatgggt caaccctca 120  
 ttctgataga ttgaaggggg tatatccaaa atttgaaatg atttaatcag taggctgtaa 180  
 cagaagtaaa ttacatgtcc ttttctaca aaagttcaca tgaactcact acagaagatg 240  
 ttagtgactg gacaatttgg ctagggtgag tgtaataact ttacaccat ttgacatata 300  
 ttgaatgggt gcaaactctt caggcttatg gctgtaccct ttgtaacatg gaatgaaaat 360  
 catgccca 368

<210> 5365  
 <211> 552  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071h07a1

<400> 5365

gaacgatttg atggtttgga atgcatttcc caagcaacga gtcttcgggt cgaaaccagc 60  
 agagagagag agaacttcaa ctgaggggtga gaggacaca aatctaggga gcactactct 120  
 aaaagttcta ttagattctt caaaacatga ccatgcatcg cgagtcttgg gcttttgtct 180  
 tcggcggttat gggcaacatc atctcctttg gagggttct tgctocattg ccaacctttt 240  
 accaaatcta caagaagaaa tccactgaag ggttcagtc acttccttat gttgttgac 300  
 tgttcagtc aatgcttttg atttactatg ctttcgtcaa aagggaagct gccctccttc 360  
 tcattacat taacacattt ggaattgttg tggagtcaat ttaccttgca atcttctac 420  
 tttatgcccc aaggaagcct aggcttaca ccatcaagct tcttctctta ctgaatgtgt 480  
 ttgggttttg agccatgctt ctatcaactc tctacctgtc aaaggagca cagcgtcttg 540  
 ctatcatagg at 552

<210> 5366  
<211> 507  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071h07d1

<400> 5366

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caacagcacc agcagtagct gcgtgattcg gttccattgt tcccatcttc ccaacgtcaa 120  
tgatgtggcc attcaattct tgagccttca ctggctcctc tagtgccact ggggtggcgt 180  
ttctgtacat caaatacatc cccatctgaa ttatgccgaa gacaaacca agtgtgtttg 240  
gaagagcaac gtaataatcc ctgaggagaa ggccatagaa gaaccacata acagcattga 300  
tggttaaaaa cattgacaaa gtaaattggca tgtattccac gtcctctgctc tttatgacac 360  
gcctaataat gaagagaggc gcagcaaaga cactgatgtt gaaaacaagg caaatccatc 420  
ctatgatagc aagacgcttt gctccctttg acaggtagag agttgataga agcatggctc 480  
caaaccctaaa cacattcagt aagagaa 507

<210> 5367  
<211> 562  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071h08a1

<400> 5367

ttctcttttc tcttccaatc tcattttctca agatcggctt cgctgcttcc tcaggaatta 60  
tgtcttttgt gcggaattat caagcagaag attgtagttt acatagtggc tactggcca 120  
cctttgatgg aaacaacttt ggcaacagca ataggaaaag aagcaggaac aattattata 180  
acaggaactg taacatttac aatgacaacc ggacaaaatt tggggaccat gggtgcaact 240  
ttaattttta cacagctgat catgctaatt atgtagata tgatgctgtt ccatcatctt 300  
tgaaaaggag aaaatattca gtgcctgctt ggcaagaaag ccagcaatac tatgttccac 360  
ccatggcca tgacaatata ccttcatact ataatttcca aggtcctcct acaagatctg 420  
atgggtgatgc ctctacatca gctagctgca agcgtgattg ctctattttt gaagatgata 480



agcctgtctt catgtctagg gacgaaattg atagacactc tccatcaaga aaagatggta 540  
 ttgatgtaca tcatgagaca ca. 562

<210> 5368  
 <211> 238  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220071h08d1

<400> 5368

aaaaataaaa cccaacaat ttattaagg aaaatccttt acaatttcag cacatatacc 60  
 ccggcatgaa tataattttg ccgctttaa gaatttttcg ccacaaacaa gggggtaggg 120  
 ctcaacaaag cccaaaccaa caattataac agtttttaggg ggattaattt cccccagaaa 180  
 ggaaattaac gtaataggca acacatgggg ggcacgttca tgggggtcat ttataag 238

<210> 5369  
 <211> 587  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220071h09a1

<400> 5369

gcctgttact ctggttataa tcaagtagat tccgtcatca tgaaccaatc gtcaatagac 60  
 cgtggattct ttcggtctct gtttttccgt tcatatagag atgaagagaa gaagatggga 120  
 accctggtca aagaagattt tggccgtcct gatagagcta acaccatggg aatgagacat 180  
 ggttcttatg ataagctgga tgatgatggg cttgccccac caggcacacg agtatctggg 240  
 gaggatgtta tcattggaaa gaccaccca atatctcagg aggaggcaca gggacaagct 300  
 ntacgttaca caaggcgtga tcacagcata agcttacgtc acagtgaaac tggaattggt 360  
 gatcaagttt tgctgaccac aaatgctgat ggattgagat ttgtgaaagt aagagtgaga 420  
 tctgttcgta taccacagat tggtgataaa ttcagtagta gacatggtca gaaggggaca 480  
 gttggtatga cctatacaca agaagacatg ccctggactg tggaagggca taccctgat 540  
 attattgcaa tccacatgct attccttctc gaatgacaat tggtcag 587

<210> 5370  
<211> 439  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071h09d1

<400> 5370

aaatggaaaa ctcacaaatc aactttgtca aataaattct ctcatttcac tatattgtac 60  
aagaattgaa cttaaaattg ccagagtctc gagttacaag taccatatac catagctctc 120  
aagcattgca actaaattta aataatccaa ttcgggtgac ctccccctaa accaacaaaa 180  
ggatttccaa aattggagct ggaattctcg gttgattggg tataagacct ttcacagcat 240  
ttaagacggg gctcactaga attacgcgac agaaacttct gctaaccat ctctgcttag 300  
tgaataagaa acaagctctc ggaattgaaa aacttccatt atatatacag tgctcggctc 360  
gtaacattag tcgcttgaa tgagcaccct tgaatagaga aaacgcagcg ggaaacatca 420  
ataatgaagg tatcaaagc 439

<210> 5371  
<211> 552  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071h10a1

<400> 5371

atttgagggt ggtgttgatg caggagagca tgcctccatt gagcttgcac tgttgaacat 60  
gggtcttcta cacagagctg taaagagaaa ctgtaggcct atggtagaac tactgttaag 120  
atttgttcca gttaaaacct cagatgggtgc agacagtga atgaagcaag ttgccgaagc 180  
ccctgacaga ttcttattta gacctgatac tgtcgggcca gctgggttga ctctcttca 240  
tggtgcagca agtatgagtg gctcagagaa tgtgttgat gcattaacca atgatccagc 300  
aatggtggga attgaagcat ggaaaagtgc ccgggacagt acaggtttga cccctaacga 360  
ccatgcttgc cttaggggct attactctta cattcaacta gtccagaaca agaccaacaa 420  
aaaaggtgaa agacaacatt tgggtgatat ccctggaact gttgtagata gtaacacaac 480  
gcagaagcaa tcagatggaa ataggacatg tagagtttca agcttaaaga ctgagaagat 540  
tgaaccacag ca 552

<210> 5372  
<211> 504  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071h10d1

<400> 5372

gaaccgtaaa tatcttgtat ttattgatta attaatacaa ggcaatttcc tcaaattgct 60  
taaaactgtt atggcggttat ccttattatc acatatataa tggcctaata gcattgaccc 120  
catatttaac aggttcacag gtttcataat caagattctg ttctgaacag gtgaagtgtc 180  
aacctcgggt tttccccata tatattgatg acagctacta ttactatgga tgtataacat 240  
gtctatactc taaacccaaa atctaagact taccaggttt ctaaaataat atattaagaa 300  
aaggtggaag cttacagcag aaaacacctg atatacaaca ttacattgcc ccatactcta 360  
atgattccca gttgaaaggc tggaagacat aataaactct aggtgagctt ttgaagagca 420  
tagctacaca gacacacaca actgctatgg tcaccatgga gagcatgact ggcctataaa 480  
ccattgctgt tttcatgccca ccatt 504

<210> 5373  
<211> 567  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220071h11a1

<400> 5373

tcttgataag ataaaactat cctcaaaagc gcacagatat agattacaat gctattacac 60  
tgaacaaggt tgggttagatg acatattcaa tatatcgcaa tattggagat ctctaaagta 120  
caatcagcca aactggtggc ttgaaaattg gttaagaaga gaaattcaag ctcttatcca 180  
ggaggaggat gttgacatca ttttgcacca tatecttgct gtggtcaaag cagcattatg 240  
gactaggaga gagcagaagt cacacatgaa tgcacctgaa aagaaacagg aggagttcaa 300  
gatgtcagtc tctgaagccg caaggccttt tctggcagca agaacggaca gatttgata 360  
tgagattcaa ctatttcttg cttcgggaat gaatattgaa gcttatgatg ctgcttacat 420

acaacggtta ggttggagct cacctggggt aaacactgag gtttctcata gtgaattggt 480  
 tgatcgctca actgtgattc catacatgca cctatttgat ggtgactttg atgaaaatga 540  
 ngtagattct tggctctgtt ttctcat 567

<210> 5374  
 <211> 386  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071h11d1  
 <400> 5374

aaccaatata atatgatatt gataacaaac atatgttaaa caactttaca cccttggggtg 60  
 gagaatttgc aacttctgca gtagctggaa agaatacaata gcactcattg gtgtgtgagc 120  
 aaatttctcc tatacaattc attcgggtag caattacagc aaatacatga gaaaaacaga 180  
 acaaagaatc tactcatttt catcaaagtc accatcaaat aggtgcatgt atggaatcac 240  
 agttgagcga tcaaccaatt cactatgaga aacctcagtg tttaccccag gtgagctcca 300  
 acctaaccgt tgtatgtaag cagcatcata agcttcaata ttcattcccg aagcaagaaa 360  
 tagttgaatc tcatatacaa atctgt 386

<210> 5375  
 <211> 623  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220071h12a1  
 <400> 5375

catttttctt tccttttctt ttactaaca tcattattct actttgttgt atctgagctg 60  
 ctgaacttca gagtgtggca gcagatcctg ctcttcttct tcaccatcag acttgtgctg 120  
 gaaatgggat tgggtgacagt acctccttga ttccagaatc ctccagaaga ccaagcctct 180  
 cctctctgca aataccagcg ttgtcagtg aaaatgcatt atcttctttt aacaagacag 240  
 atggctctat attgatatca agtccagggt ccagtagagg actgccccca aggccaaatt 300  
 cagccagagt catcaagtcc actatgaaaa ctttactctc tgaaaggagc ttaggggcta 360  
 agaattcttc aatggatagt gaaaggacag ttctcattat tcctgatggc tcaccatcag 420

atggtcctgt ggataataag ccttcgactt cgcggtcctt ttctcttaac aagattttgt 480  
tctcttcctc aacaaaagca gcacattcat tgccggttac tccaactgca aattcaggtc 540  
cagagaatgt acatggaaga catctagggt gtgattctga tttaagtaaa atgaaagtaa 600  
atcagcacat gacttcgatac agt 623

<210> 5376  
<211> 506  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220071h12d1

<400> 5376

atgtccgatt caagaaatag tcaattatct tcaaattatt atagtacaaa tcttgatgca 60  
agaatctaata gataaaaaat acatgacaac catatatatt gtaagcatat aaacgcctc 120  
aaccctcttt caaaaaatat tcaacaaaaa cattcctatc ctgtattcgc agtttacata 180  
ttgctgctca tgatggattc attcattcct catatatattt ggttcacacc aaattggaaa 240  
ggccaaatct ttgtagtttc taaactataa acaaataaga gaccacaaaa tgcttcattg 300  
ttgcaaaata ctggtgttca actattgctg gaggagctac tgctactggt gttgcagcct 360  
ttgcagttgg tgacactgtc attgatgttt ttgctactgc agtgcatgat cacggcgctg 420  
ctgccgtgcc gtagaagatt gaatctgtct tcttggtttc catctaacat actctgttag 480  
cagcgatttc aagctgattg caatcc 506

<210> 5377  
<211> 362  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072a01a1

<400> 5377

cttgacatc gtttctttgt tgcccaggga tctaaacttc aatgagcata caagttgtat 60  
cgactggcca gagcatcaaa gagccagcc tatcactata gatacaggct gatatcattc 120  
aaagaaatct ggctgactt gggctaaaga taagagatcc gttacatcat cgatcaagct 180  
attcacaggg tctgcatggg ttgtctgac aaactcatct gctgagactc atgtttggga 240

tactgataat ccttctagaa ctctccttat gtattacaca aattttcttt catcccctga 300  
 gggacacata catacagaca ttggaaaaca taaggtctat cataacacaa ccattaatca 360  
 tg 362

<210> 5378  
 <211> 359  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072a02a1

<400> 5378

cattgttgta agttgttgat tactatggcc tgtataattc gatattctaa cctcatgagc 60  
 ggaatgagat cggccgtgta tgagcgatct tggctgggtat aggcatgggt gctgtcatcg 120  
 aatgcatggt gacaactact gcctcttgcg atgatgagcg gcaacacgat cgtgtcgaga 180  
 tcatgggtcaa cgatgcagat ctacagaact actccatcct acgtggctct gaccgtcaca 240  
 ctactgatga tcggtagata cggcgacata accgactcga tatgaaccct gccaacaccg 300  
 taatgaatgc tatgctgtaa gactggaagg cgtattctcg tagcatcagt acacgggtga 359

<210> 5379  
 <211> 547  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072a02d1

<400> 5379

gagtgaagctg accgaggaat ttgccgtgct acatgtgtgc acgtccgcct gcttgggggg 60  
 gggggggggg gggggggggg gggggggggg aaggagcgga aagccggagg atggaggggc 120  
 ccatagtgta ctacctacac agttctcttt aaacttttta aggaacaatc gtgggagggc 180  
 cccagaaaga agttatagag taaacgaggt aataagaata taaagaccaa gtatcaaagg 240  
 acacaaccaa aagaaaaaga aaaaagaaaa aaaaacgacg gcagcagcgg caaggaagga 300  
 accctaaaat ataatttgag aagtccagtt tagctaacgc aatagctgcc ggctagtcgt 360  
 tagaccggaa tgcgacctag taccctattg tggtggcaac aatggccaag aagtgcgcc 420  
 attccattta ctactggtcc gctgataata cgatgcacgt cgaggcaaaa ttcgctaccc 480

cggcgggctag ttcttaccaa ttgccactgc acgcccctat gtgttcagca gcgtcctcct 540  
ctaggga 547

<210> 5380  
<211> 219  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072a03a1

<400> 5380

ctctacgaca acctcctttc tctctatctc tagctcggat gagtgctctc tctaactcca 60  
gtagtagcca cggcaattcc ttcctcaaga tgcccggcat caagtttacc aagctcttca 120  
tcaatggaga ttttgctgat tccatatacag gaaggacatt tgagactata gaccccagaa 180  
aagaagaggt aattgcaaga gttagtggag gaaataaag 219

<210> 5381  
<211> 581  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220072a03d1

<400> 5381

cgcacgcacg gttgccgggn agagtttgcc gtgctagcat gtgtggagtg ccacctgctt 60  
gggggggggg gggggggggg ggggggagag ggaacggaat aatcgccgaa gaaaataaac 120  
gaagtagaag aagataacac ataaggtata taggagaacc aaggaaacgc gaagggaggt 180  
taaagcaaaa catgtatagg gcgctgtatc gaccacatag gtaatgaggt aaacttaacc 240  
acaaggagca agaccgcgga taatacaggg aatggcgaa gatggcgcaa cccttgcgaa 300  
gtttaaagtg tggttaaagt tctgtagtgg agatttgta aaaccaatag tatgtttgat 360  
ccgaaaagac tacggcagtt aaataagctt gctatcaagc cattggcata gacgcgggct 420  
acgagttaaa ggtggccgga taaggttgct gctgacctta gatggccgag gcggactatg 480  
gggaaggctg gttgttagcc gtggaaatgg tagtactctg acgataccct taaagagggt 540  
agtttcgctg aggactagcg ttgttgggat aggccacaaa a 581

<210> 5382  
<211> 521  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072a04a1

<400> 5382

cgccccccca aaatcttccc atagatctgg attgacttca acaaatacta gtaacaaggg 60  
cagacattcc tctcctcttc cgtctccacc agatcatttt gctgcttcat cctctccaat 120  
gggagctgta aatatgtcta agagctttga ggatgctgtg ccagcacaaa tgacaggcaa 180  
acaagatact aatgctgttt ctgagaaaga aatccctacc aggacaaaca atgctatgag 240  
gaacacacca ggaggcaagg gaaaaaatgg gtctaaacca gtagatttgc agggcatgct 300  
aatttctctt ttaaaggata aacctaatgg aatgactttg aaggccttgg agaaagctgc 360  
tggagacca cttccaaatt ccatgaagaa aattgagcca attataaaaa aaattgcata 420  
ataccaggct ccaggatggg atatcttgaa accaggatgg gatttagaaa gcttaataaa 480  
cctcagactg aaagtggaag ttctctgat gactatcaca g 521

<210> 5383  
<211> 610  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072a04d1

<400> 5383

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gggggacgcg gcgttaaagg atgccccaaa ttacaaggga taaacctgca acagcctggg 120  
ttgcaagtgc aacggctggg taagcaacct gggatgggac gaagagtgca aggttgagtt 180  
gtacaacgcg ggctgggcgg ggttaatacg ggaaagcaat tgggggcggt aaaggctggg 240  
ctaatagcac gggtagtgcc acgccatgta tccaaggat ttaatgttaa cgttcaaact 300  
gtgtgggcaa cccacagatt gtcttttagga cggatacccc aggtagtaaa attaagggtca 360  
ggcggcgttg gaccgcagcg gtttaacgcg catgcgcgat gggcgctcctt ggttggggaag 420  
ggattaatta ggggtattggc gggggccgaa gaacaagtta gccagacgca tgcgggatgg 480  
ctaggatgat tagtttgcca aggttgcccc atgggggggtg taagcctagc aagagtggta 540



ggtaaccaag tgtgatgaca gggagtgcgt gctatacaac agctgggtatc gcgagcaaac 600  
gttgggttgc 610

<210> 5384  
<211> 525  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220072a05a1

<400> 5384

ctcaccctcc tcttcacaca ttttctgtgc gctctaaca acattctcgt tcacactttc 60  
agattgtgtg aagatggggg cgggtggccg aactgatgtt cctcctgcc acaggaagtc 120  
agagggtgac cctttgaagc ggggtgccatt tgaaaaacct ccatttagtc tcagccaaat 180  
caagaaggtc attccacctc actgtttcca gcgttctgtt ttccgctcat tctcctatgt 240  
tgtttacgac ctcaccatag ccttctgcct ctattatgtt gccaccatt acttcacct 300  
ccttcccagc cctctctctt tcttggcatg gccaatctac tgggctgtcc aagggtgcat 360  
ccttactgga gtttgggtca ttgccatga gtgtggccac catgcattca gtgactacca 420  
gttgcttgat gatattgttg gcctagtcct acactccggt ctccctagtc cactactttc 480  
atggaaatac agtcacgnc gttaccactt caacactgtt tctct 525

<210> 5385  
<211> 535  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072a05d1

<400> 5385

gatgctgtca gggatttgcc gtctacatgt gtaggagtgc ctacctcttt gggggggggg 60  
gggggggggg gggggggggg gggggggggg ctaagaagta aatgcggtaa acacctgaga 120  
gtggagggtgc gaaataaaat tctgggctaa tgcgtgacag atggatgatt aatagtacc 180  
ggtaataaaa ggaggtttaa gaactaatta gcagggtgaaa tacgtataac ccaaacggt 240  
aacaacttgt cctgatagga agtagtataa tggaggcggc cggtaaaaga tattgggctg 300

tgtccgatgg gcagtgcctg ttatagaaag atatgtgggg cttgggtggt ataggcttgg 360  
cataaagcca cgtgtagtaa attcagaaga tgtgtttaaa agcccgggga ggcttgggcg 420  
acttgttagg ctagcagaag cgcctaggcg ccacaataac gcagcgctga tagcaagcgt 480  
gccaaagga gccaaaattg gcggtaccag gttagaagtg tgagttatgc ggctg 535

<210> 5386  
<211> 426  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072a06a1

<400> 5386

ctaggatgct gtgatttttg gcctctcaag atgagaatga ctggccgggtg attgatccct 60  
tgccatctta tggcagaggg agggacacac taagcggaaa gaggagctat ctaataattg 120  
gatccatcct cactgatgta ctcatatctg aggacaatgg cacattagat ggacaagggtg 180  
atctgtggtg gcaaaaattc cgcaaggggg agctcacaga taccggcct tacctgacgg 240  
aatcatgta ctcagataat gtacaaatat ccaatctcac tttggttaat tatacatcgt 300  
ggaatgtaca tactatatac agcagcaacc ttgatagtca aggaatcaca attcttgctc 360  
ctgtgacatc cccaaataca gatggaatca accctgactc ttgcacaaac acacgaattg 420  
aggact 426

<210> 5387  
<211> 506  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072a06d1

<400> 5387

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gggggggggg gggggaaaac ggaaaataag ctagcaggct agggagcagg taccgggtta 120  
ggagatgaat ataatgtgtg ggaggaagca taaagataaa gataggtact tatgttaaag 180  
atagcatgga gctagatata atgcagaaac caagtgccgg ttggtaaggg tataggagg 240  
gaaaattacc aatactatgg aactaattag acccgttgga cagacacaga tgctgcccaa 300

tggttgcaaa acgtaagttt gatgcatgac aaccagacac taaactcgaa cctaggggag 360  
 tgccctttaga ctccgggagc aagcgtgtag tgggcccgtgg tgtgagaact ggtgggggtaa 420  
 gtgtggtaac tgggtgggta aattgtggaa agcttgtgaa gccattccta gtacaacgtt 480  
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<210> 5388  
 <211> 480  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072a07a1  
 <400> 5388

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 acaatcccaa aacagatcaa cgttctctt ctctcagcaa tgccctggaag cttaaggaat 120  
 ctgtcacttt ctcccaaaat cttctccttc accttgcttc tctcattaaa ctcccttctc 180  
 tttttcccat gttgctactc ccttgatgag caaggccaag ctcttatagc atggaaaaac 240  
 agtttaaaca tcaattcaga tgtgttagca tcatggaacc cttcagcctc aagcccatgc 300  
 aactggtttg ggggtgattg caactcacia ggagaagtga tagagataag cctgaagtca 360  
 gtgaacttgc aaggctcatt gccttcaaat tttcaacctc taaggctcctt gaagattctt 420  
 gtctctcat caaccaacct cacaggaagt ataccaaaag agattggaga ctatgtagag 480

<210> 5389  
 <211> 574  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072a07d1  
 <400> 5389

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 gagaggagg gagagaaaag aaaagataac cctaatactt gtagagaaca cctgtttaga 180  
 gcacgcccta cgacaaatca aaaaaatagc ccagaagta tttaaaggaa cccaactgat 240  
 ttaagaaccc taggccggtg tgtgtatagg agaattttta aaggagggga ggaccaaga 300

atztatgtaa tacccaacag aaagaatata ataggaaaat ttcaaccatg gagagtgttt 360  
 gtaggttagt gggccgtgta gttgtatgtt actactaggg taaaagacat tgcccacagc 420  
 gatgcctagt atacttggca ataaagcagg cccatataat gccattattg atgttaactg 480  
 tggtagactg ttgggcatta taccacgagt tgggcagcgt taacccaaag ggcgcaacgg 540  
 gggctcttagc tagcgtaagc gctaaaccaa taca 574

<210> 5390  
 <211> 604  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220072a08a1

<400> 5390

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 tggcaagtcg gtggaatgct cacaccccag agtacacaac ggcaggcctt gtttaggaag 180  
 aatacagtgc aagcagtgc gccacgtgaa accgccaac aacaacgtcg tgacgacgaa 240  
 cgttgggggc gatcaactgt tgtgtcagga tagtaggcaa catcggtcat tatatccgcc 300  
 aagtaacaac ggtacagtgc tgctggatgt taatgctagt tctaacttag ttgcacaggt 360  
 ttgaccgtcg cgcaccatcg actttttgga cgttgctagt gctgagaggg ggtgacgtgt 420  
 ggtgtggtgt tgggggtggc aggggtggtt gctttggggc agtgtgtgat tgatatacta 480  
 acatgggcag gtgggagcac gtaacagcct gcctgttatg aggccgggtc aaactgagca 540  
 aaaaacatgg ctgagagtag gggggcaata gccgcgtgg ctgcatttgc aaacaagacc 600  
 ttgt 604

<210> 5391  
 <211> 576  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220072a08d1

<400> 5391

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 gagagggagg gagggaaaag aaaagataac cctaatacct gtagggaaca cctgtttaga 180  
 gcacggccta cggcaaatca aaaaaatagc gccaggagta tataaaggaa cccaactgat 240  
 ataagaaccg taggccggtg tggggatagg agaattttta aaggggaggga ggaccaaga 300  
 atttatggaa taccaaacag gaagaatata ataggaaaat tacaacgatg gagagtgttt 360  
 gtatggtagt ggtccgtgta gttgtatgtt actactaggg tacaagacat tgcccacagc 420  
 gatgcctagg atacttggca ataaagcagg ccgatataat gccattattg atgttaactg 480  
 gggtagaccg ttggggatta tacgacgagt tgggcagcgt taacccaaag gccggaaccg 540  
 gggctcttagc tagcgaaagc cctaaactag taaaaa 576

<210> 5392  
 <211> 587  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220072a09a1  
  
 <400> 5392

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 aataatctta gatcggggtg aatttagtcg ctcaccgttt gtcattgttc tataatttta 120  
 atgttaaccc ctgcgcttgc gtcttcgctg tggttatctg tagcgtccaa tttcatagtt 180  
 atctcttcgt cggttgctgt tactctttct tctgttgcta cgtccttgtc ttatgtggta 240  
 actactcagt cgccgtcttc catcttggtt ctcagcacct cgctgttcc tctaacccca 300  
 atgctaacaa ttcttctact aacactcgta ttcagcacca tcgccatcac tgtaaacttg 360  
 ctagtcacgg ccctggcca ggtcagggtg tttttcacia tcaactgtcag taatcttggt 420  
 ttcagatggg ctttctgtgt ccttgtgatg atcttcgtaa taactctgat aataatgttt 480  
 gtcgtattaa aattatcttc gttgttggtg gtcgctgta tcaggctcat actacgttgg 540  
 ttttttatcc tacgttgtat gttcgtagtg gtattattcc gcagaat 587

<210> 5393  
 <211> 527  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072a09d1

<400> 5393

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gggggggggg gggggggggg gggggggaaa ggcgatcgaa cgtgactaga gagtagagag 120  
cgcatacaga agatgagaag acaatacagt gattggcctg gacgtagtat aggccataac 180  
gatacgataa aataacctct gcttcatact tttctagcga agcgaagaga ctgaaggaa 240  
gaatgacggg ccggttcgta taaggcccg cggaatgacc cgttctgtgt ccgggccggt 300  
ccggtcagcc ccaagtcagc gtagggagaa gaagattaag tatataggct ggtgagggga 360  
gcctggatcg ggcataattt gctggtggtg gggctggttt aagcatatag tgcaatgggc 420  
atctattcca taactaatga ttgcacttta tgcttgact tgcgtggta ttcgtgcacc 480  
cggagtattc cgccgaaca gcctccaagc cccatgcttc gcccccc 527

<210> 5394

<211> 605

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072a10a1

<400> 5394

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gcagcagtga atcgcaacca agtcattagc cgctccttcc tccaccacca cctctcctcc 120  
cgccgcgcca atgttaatcg ccattgccgc cgttttaagg gttatatctt tactcgtgag 180  
ggtgagaccg ttaagcctct ttttaatggg ggtcatccta accggagcaa ccacctatgc 240  
attaaccgct gccgctttgg tgatttaagc ctgccctcct gttgctcaca gcatcatccg 300  
tctcgtcaca ggcagctca tccgtacccc cgctgggggc gccaccttca tatgcctctt 360  
cgtagtcac agggctcctca ggggtctgttt atttggcact gttcgtactg gagttttctt 420  
cgccaggagg tataaccaag actagttgag ttttgcgcc gcggataccg aatatagggt 480  
aaagcgccac cccgggtttg cccacggccg agctaatagt agcgactaca gccacttggt 540  
ccgtgctatg gtagtaagat agccgtacag cgcctgtcgc ctgaccagcg gggtaggtta 600  
ttagg 605

<210> 5395  
<211> 577  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072a10d1

<400> 5395

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agaaaaaggg ataatatgga agcgacgtta gagaaaatgc aaaccacgtt taggaatacg 180  
gctagattcg ggcgtaaaac tagtcataca gaataaacg atcaccccaa acaaaatttt 240  
attgacaaat aggcgcctcg gttagagcct ggcaacctaa gcaggtggta aagcgtagat 300  
aacaaagttg gaaatactgg tagagccgta cctgcaacac tgagccttat acagacctgt 360  
ttagtagggc ggcactggcc aaggagcaaa cagacttttg tcgagctaag gttattaccg 420  
tttagcaaga ggccttggtt ttaattaaac gtactagtag ccaggccaac ttgacgttac 480  
tgacgcagat taaccgggcc atatggcaaa cgagcacttt tatcaattac tctggggaca 540  
gtcccagcta cggtgacaga cgtaacagtt cagtgtgta 577

<210> 5396  
<211> 585  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072a11a1

<400> 5396

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gacgtaggca ctgtagtagt agtacagcta caaggccacg gtggaaccaa aacataacga 120  
ctggccaac aagttggttc ccattgtgag gatagctggt caaacaatag ggcaccttgg 180  
gtggagcgga ctatgcttta cgggcgcgc agcggtatgc cggccatac tgtgccccaa 240  
gttaaagcgg tcgcttagct ggagagtgtg tacgtaattt acccaggaac agtaggcgga 300  
acacactagc agtgtgccgg tgtgagcttg tgggcttagg taaaacgcca ataacgggta 360  
atgcaccagt gacggcacgg catacacaga cacaactaaa atggatcata catgtcctca 420

ggaaccgtag gtgtgcagcg gcagaagact ttacaagtgg gctgcctggg gacgcctaata 480  
aataagcgat agctgggaga gcatggggga tgaaaggata ccgggtgtgg cattgtatgc 540  
gtgacgcacc atcgattgcg tggagctgtg ctgcgcttag ggtaa 585

<210> 5397  
<211> 525  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072a12a1

<400> 5397

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atggtttatac acgcctggga atgccgtgcc gtgccgtgcc gtccatatat aaaaagagga 180  
cgagccacaa acacacgggg cgcaacaagc cactactggac aggcttggtc cgcgggtcgg 240  
gttatttcat gcagcaccac tgccagggct acgatggcaa ctctaaccgt ggtgttgctt 300  
tgtgcttact tgtgagtagg ttgcaccggc agcgggctaa cgtgcagttg gcccagggct 360  
taccgcaggg ccactaacac acagatgggtg ggactattaa acacctaaa gagtttaatac 420  
caaagtctgt gaatacactt ataaagggtcc cggaggccaa cctaatagcct ggccatagat 480  
aaaggcggat ggtaaaaccc aattaacggc gccgcagcaa caaca 525

<210> 5398  
<211> 477  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072a12d1

<400> 5398

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gggggggggg gcaaattggg gaaagcaccg actaggggag catgacaaac caacgaacta 120  
cgcgcttagg agtaaaaaa ccggaaaggc aaccaaaagc cccacgttag gatatatgct 180  
gatgagtacg attaggtgtg ctacctgatt tgggaatgaa gcttccgtgt agggccaccc 240  
agctggttgg gtaataacgc cggcagcagc aggggtaccca aaccxaaaca caaggaaaaa 300



gaaaaaaatg accacagaag taatggggga accaaccgcc agctacatgg ccggcggaac 360  
cagttcgggtg aagatgagaa cccaacctct gccactgatg cagtgtggga gccgtagcgg 420  
tagtgcaggt agcagtagcg cgaagggtga ggggtgcttg ccaggaccaa gtaagtg 477

<210> 5399  
<211> 501  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072b01a1

<400> 5399

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tttcaaggct gatgattgct catccatatg cttgatctcg aagattagcc tgctataacc 180  
ctatcctgat ccaaagttag tgggaacaat agacatccct tgtagcacct gcatttttca 240  
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gaagaatggg atgctcttgg atggttctac agagcctact ttgaatcata cattgcaatc 360  
acctcagtac ctctaggagg gcagaagctg atcactaact cagccagaat cttcccgaat 420  
ccaaggtcta gtgctactaa cacgttaaca atcgtagggc ctgaagattt tgctattgca 480  
taatcccaga atatagcaat t 501

<210> 5400  
<211> 519  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072b01d1

<400> 5400

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gggggggggg gggggggggg gggggggggg gggggggggg ggggaaggaa actaaaagca 120  
ggaaagggtg cagatgtaaa gttctagtta aaaaagcgta ataagatatt tttttaaaag 180  
atagaggagg cctgggtctgc gaatttcagc tacaaaaact ttaaggggat gtaaaacagg 240  
tagtagtagt cgtaccaacc cctgcatgac tactgctaac aactgtactg gtcgcggcgg 300

ctgccctact gaaagtaagg gcaatgggtgc cccacttaa gcttcacag gttataaacg 360  
ctaacggacc agtattgcta acgggttgcc ttaaagacac caaacctggg gtcaaaggcc 420  
acagctgtgg tctgcaaagt ttagaagatg ctaaagggtg tggttgcgcc aaccaattg 480  
ctgggcttgg tatggcttgc ggtggcatag taattggcg 519

<210> 5401  
<211> 144  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072b02a1

<400> 5401

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gctttggta gagtacttcc gttacactga tatcgctact ggtatgctgt gagatgttga 120  
tgtgaagtgt gtcggcaact gaggc 144

<210> 5402  
<211> 656  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072b02d1

<400> 5402

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tgaggggatg aaggagaaag gaaaggtag aaaggaagga taaaaaaaaa aaggcgaaag 180  
gaaggggaag agttagaggt gaaaaaaac aaagcgggca aaggcgtaag tgttgggcct 240  
aagaataata aaaatagtag taagccatta gaggtggcct actcatgggg cacaaccggg 300  
cagaagactg tcagtggccg gacttacctc agacttcaga ataagtgtcg ggtggcgatc 360  
atattgaagt aggagagtag acaaatatat ggtggttggc gtaaagaaag ataagtgtct 420  
gctgggtcga tatagtgtcg gttttgttgt gctaaagaag gttgtaacaa tatccggaag 480  
ggctggcgtg gtgcttatta ggctgacgct tagctgaatt actgtaggac agaatataga 540  
agtatgcagg tggcatatac atatgacagg gtgacgttga caagtgaaaa gggatatgaag 600

gagaaggcag gcaatgcaac tggctgctag cgtatccagt taacacgcgc acacaa 656

<210> 5403  
<211> 535  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220072b03a1

<400> 5403

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ttccatgaca atggaatctg cgcttacagc ttctaactgg aaccgttctt tgattcggat 120  
tcgccacact aagccacgct tcggtgcaat tcgccccaca gcaatacggg gctccatcaa 180  
ctcgtatcgc ttgtccaacc tcaactccctc tgagcttcag agcctcaaga gccgaccccg 240  
catcgatttc tcttccattt tcggtgttgt taatcctatt gtcgatgatg ttcacaaaag 300  
aggggatgct gcggttaaag aatacacttc aaagtttgat aaagttgaat tggataagat 360  
agttgaggtt gtctcggagc tccctgaccc tgtgcttgaa ccgcctatta aggaaagctt 420  
tgatgtcgcc tatgataata nttatgcatt tcatgctgct cagaagtcac tcgagaaaaa 480  
gtgtgagaac atgaaaggag tccaatgcac gagagttgca tgaagtatta actct 535

<210> 5404  
<211> 596  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072b03d1

<400> 5404

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ggcgagagcg ggcggaggat acaagagcaa gttagaggcg gatagcaatg gcaaagccta 180  
atggtgactg atgaagatta ttgaaagtga ccgaagtgtc ttaactaaag ccgttgacat 240  
ggcttaaaaa tgaacactga cgactggata acacagaaac acaataagca cggcaactag 300  
tagtgtagtg gcaaattgct tgcttggtga gcgatgcaac gtgtaaccga atgctgtctg 360  
gcccctggt aaccttggtg atggtactta gccggctgat agagccttta acttggtgga 420

cattggttgt gcacacacat gctatacggg gcgatgggtac caaccacgtt aagcatatat 480  
 tattagatag gtggctagaa ttcgaacgac caaccatagc cgggcggtta tggctagaag 540  
 tattaatatg tgtaccacgt taacctttgg aacaatatac aattgctagg tgtaag 596

<210> 5405  
 <211> 512  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220072b04a1

<400> 5405

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 agaagatgcc gatcagaaac atcgccgctg gaaggcctga agaggcgact caccgccgaca 120  
 cgttgaaggc ggctttggct gagttcatct caaccttcat cttcgtgttc gccggctcag 180  
 gtcceggcat cgcctacaac aagctcaccg acaacggcgc tgccaccctt gccggcctca 240  
 tctccgctc catcgcccat gcattcgccc tcttcgtcgc cgtctccgtc ggcgcctaca 300  
 tctccggcgg ccacgtcaac cccgcgctca ccttcggcgc cttcgtcggc ggcaacatca 360  
 ccttctcctg cggcatcgtc tacgtcatcg cccagctcct cggctccatc gtcgccttcc 420  
 ttctcctggc cttcgtcaac cgcttactg gttcagcttt cggactctcc gctggagttg 480  
 gagttggcaa cgccttgggtg ttggagatcg tg 512

<210> 5406  
 <211> 517  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220072b04d1

<400> 5406

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 gcagaaacat aattgtcgaa ataaccttac tcaggttatt attcagcaca cttttccttt 180  
 acgacagtta cgccggccgt taccgttact gtatcatact acctttaag cgtatactcc 240  
 ccggtagcct tctgttacac aaccttttat ttaataaaaag cggactcttc ataagcaaat 300

taagcctcag cccactaaga aggttttaaag gatttgggtgg ccccgtaagc ctacggctcg 360  
acattcgcgg tattacattc aagcgtagta tcagtgttaa tattaacctc ggcttaatgg 420  
taatgttact ccacacgttc aagctgccaa tacgccagct ccgcatcaag cttagcaaca 480  
cccaactcat cagccacttc agcactgccc tcagcat 517

<210> 5407  
<211> 495  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072b05a1

<400> 5407

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tttttttttt ttttttttac ctttctccct cgctcaataa ttcaaaacaa aaaagaagaa 180  
gaagaagggtt ttcgcgatgg catcgaaacg gatcttgaag gaactcaagg atctccagaa 240  
ggatcctcct acctcttgca ggcgcggccc tgttgctgaa gacatgtttc actggcaagc 300  
aacaattatg ggtcctccag acagtcctta tgctggaggt gttttcctag tcactattca 360  
tttcccttca gattatccct tcaagccacc caaggttgca ttcagaacaa agggatttca 420  
cccaaataa aattgcaatg gaagcatttg ccttgacata ttgaaggagc cgtggagccc 480  
tgcgctaact atttc 495

<210> 5408  
<211> 530  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072b05d1

<400> 5408

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gggggggggg gggggggggg gggggggggg ggggcaatcc ggaaaaaggc cactaggggg 120  
caggccccct aataggggtat gcggtgaaag gaatagggct acgataaata ataccacaaa 180  
tcggggctgt taggaagtgg taatgccacc ccttgaggga aaaatcataa agaggtagat 240

aaccctgcag accttgaaat atgcccacga caaacctgtg gttggatata gggtataaccg 300  
 tatggaattt agcctagagg gtgcccgtta ctggtgccta cggcatgtcg atggcggggtg 360  
 cgtgcgtggc gatagcgccc tgagggaccc cattaaccca gtagtaccag gaccgcgttg 420  
 caattcccca taaagccgca cttatatttg gggaagggct gttgtgacgt gttatgctgt 480  
 tggtaagagc gtaacctaaa gctgggtagg ctgagggaga gggcccgcaa 530

<210> 5409  
 <211> 296  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072b06a1

<400> 5409

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 tttatttttt gctaataatt tgattgttgg aattgtcaat ggtggaccct ttgagccaaa 120  
 gtgttcatat ttgaagttaa atcttttcac caattggact gagactgctt acagtttcag 180  
 aatttgtcag aaaaagcttg tcccgattgc atttttgttc ctgtacgtac tcttattgat 240  
 acggatggca gcaccattgg catgtgtcgt tgggagtggg tcatctcata cagagt 296

<210> 5410  
 <211> 585  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072b06d1

<400> 5410

gttatcgaga gaatcttgcc gctgctagca tgtgtaggac taccaccttc ttggggggggg 60  
 gggggggggg gggggggggg gggggggggg gggggggggg gggggggggc gggggggggg 120  
 gggggggggg gggggggggg ggaaatataa agggaataac tttggtagaa atattagggc 180  
 ccacacccat ttaagcttt ttaaaaattt ttcccaaaac tcccggggaa aacttcaaaa 240  
 aaaaaaacc aggggacctt taataacccc tgaaaccgca aattaagttt tttggagaac 300  
 cccccctaaa cccaagtttt gttgggaaaa aaaaaaattt ttcccccccc caaatcccc 360  
 aaaaaatgcc cttttccttt ttagggtaa ttagccccc ctttctttaa tgcccccccc 420

cccctttgaa aaaaaaaaaac ttaccccccc caaaatTTTT cctccccccc aataaaaaact 480  
 tgggtaaaat tggggaaagc cccccttggt gggccttttc aaaaaaatag cgggttttat 540  
 tccctttgga atttaaacc cccgcccctt tttttgcgac ccccc 585

<210> 5411  
 <211> 289  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072b07a1

<400> 5411

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 tttatttttt gctaataatt tgattgttgg aattgtcaat ggtggaccct ttgagccaaa 120  
 gtgttcatat ttgaagttaa atctttccac caattggact gagactgctt acagtttcag 180  
 aatttgtcag aaaaagcttg tcccgattgc atttttggtc ctgtacgtac tcttattgat 240  
 acggatggca gcaccattgg catgtgttgt tgggagtggg tcatccata 289

<210> 5412  
 <211> 409  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072b07d1

<400> 5412

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 gggggggggg gggggattaa aataataagc gtggcaggta cagacgcact aatggcgata 120  
 ttagtagagg gaaagagctc ggggatatgg gggcggggta acaccatgaa gataggacac 180  
 caaaatagac aaacaaacca acgtgggagg ggtgtgtgag ataagggcga tttttatcgc 240  
 agcaatggat taatggctaa ttaaatgcaa tgtgattttt agaggaatgg ggggaacaac 300  
 cttaaaaaaa aaaaaagctg taggcatagc ataccatatt aaaggctaaa aggactaaa 360  
 ggggcaacac aaaaataaat ttgggcctga aagggaatg tggaacttg 409

<210> 5413  
 <211> 658

<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072b08a1

<400> 5413

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agcgagagta aaattgggct tggctcttta gtggtgttct tcggagtccg aagtcttctt 120  
cttaactgtc ttccaagtgt gtttatcagg cagattctgt gtgtgttgca tgtattgttt 180  
gtaggcagtg gtgttcagcc ctgaaacggc tatccattag agctgtggtg atcggagagt 240  
ccctcacggc ttacttggtt gaagggtgag ccctaaaagt tagggcaagt gacttacagg 300  
cagcaagcct gccatgagct gttgagttgt gtaggccctt tgctggggca caagctagct 360  
aaagagagac agcacgattg ccacaactcg atggggggcc ggccggaggt aggcgtaagg 420  
ctacattgac taagtgcctt accgtggcta ccggtgcaa acacagccca aacgtgaagc 480  
aacgtaaaca aagagttaaa gtggctatca gccggtgaagg taagacgcca acaatagccg 540  
atgcttggaag agcaacgtat agtacgagag ctgcctaaaa aagcaagccc gcaattaata 600  
ctaattagcg taaaacaata cgtacgaaat atgcagaaac gcaacaaccg caagccac 658

<210> 5414  
<211> 557  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072b08d1

<400> 5414

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gggggggggg gggggggaat aaacccaaca tggggttaag gctgacgaaa aaagttacag 120  
agaagccggg ctagagaaat agacgataag cgcagccgaa atagaaaacg acggttataa 180  
atggcggagt tttaggatta atggggtgca cgcgcaagcg cccggagctg ttatatacgg 240  
gtaacagaaa aacaggatgg taaatggcgt gcggttgat tagtaccag gctagagagt 300  
ataaggccgg cgcaccctc aagcaaccg aaagtatatt gcaaagagtt tgggtgtgtt 360  
acggctaaga tagtgttatc tgcaacaggg tctagcggcc acgtgttaga gctgaaacgt 420  
gttgggggcc gatagcccgg aactatagta agcaaagttg ttgtggtaac tgggggtggg 480



cgaaggacag aagtaaagt tatgaagcgt acctaaatga cggtagtgag tgtaacgact 540  
 taacgcacgg gtaaggg 557

<210> 5415  
 <211> 542  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072b09a1

<400> 5415

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 ggcgggatgg gttaggcagg cactcaaact gggcgggggg tgctcagtag gggttaggcc 120  
 cgccaacaaa cgtgtaattg ggacgtcaaa cactaaccag tgcacgcacg cactcagtag 180  
 cgcgccgccc ctcaggagtgt ttcatggttag gttactccc tttcttcctc ccctctactc 240  
 tcgcattctt catagttgcy ccttcaaggg caccaactcc ggtgtcaacg tctgctgcca 300  
 tcagcagggc cacctacccg gtacacaagg tcaccagcat gtccaaagtc accagcgtca 360  
 gcagcaccat cagcaacacc accaccacgg caacaacaac aactttgggc ccggtgtgtc 420  
 tgtaataat aacctgctgg tgaacttgtg tgtgtcgcca ctaataatgc gcaaagtgcg 480  
 ccaagtaaac ccctaactgc acaacgcgct taacacaaac aacaacaatt acgagtctcc 540  
 aa 542

<210> 5416  
 <211> 597  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072b09d1

<400> 5416

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 gggggggggg gggggggcaaa aagcctgccg tgtaaagtag aagtaaaggc ttagaataag 120  
 caaaataatt aacggaaaaa tgcgaacgta acatgcgagt ttacattaga gagaatagaa 180  
 ggcagaagtt ggagccatag taaatacaaa agttttgcaa aatcaccgtg tggcacgggt 240  
 atataaacca gatttgagaa aaattgagag agacgttgag atgctaggac tgataacaga 300

aagaaatggt atagagctgg gaactaccgg ccgggggtggc tgcgccaggt tagtattaat 360  
 agtatcagta taaggtggcg actgggaggg atagaaaaac ccagagcaac cgcggtacaa 420  
 catgttgctt agccaaccta ccgtcgtcaa ctgttaaacc ggtagacccg gggtactact 480  
 agttgcacag ctagtggtat gcactaaaca tcttaagcta ctagtacttt agctggtagt 540  
 aacaaaacaa ccccggtgtaa acaatgggtac tgcccaggta agcgtgctaa ctgttgt 597

<210> 5417  
 <211> 553  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220072b10a1

<400> 5417

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 caattcgtct ccaaatcatc caacatctcc tcctcatcac cgtcttcctc tggagctgtc 120  
 gtccaaaatg tagtcatccg gattgtgttc acagactggg tcatctcaag tgtaccttcc 180  
 acaacggtga taagggtctt agtgtctggt ttcatcacct tacatgtggt catcatccgt 240  
 gtgattctct tcgtcagcgc gagtgttaacc tatagttcgc ccgggtccaa caccacacac 300  
 acaaaagggc tccaggcgga catgcgtaca actgcatctg ccacctcgct atctatctcc 360  
 tctaaaatca cacctgggtc tgctctctcc gccgggtaccg ctgcgggtggg cactactggg 420  
 actgatcata tcttagtctt ccaatctgca gcctcctcca actacttctc cacttgcgct 480  
 cctacgtcct cctctgccaa tcccaactcc aacctcctcc atcacaacca ggaccggaca 540  
 tggacactat cgc 553

<210> 5418  
 <211> 551  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220072b10d1

<400> 5418

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 gggggggggg ggggggacgaa gggaagggtg actgtagtgt agaggggtag agattcaaga 120

aggtcacaaa cgaaacggag gagatgagga agtaaggcaa aggaaaagga gccaaaagga 180  
 aacaaaaaaaa aaagcaataa ggataacgcc catttcgagc aaagggatgt taataagcag 240  
 gtgtatcgca cccaccaaac gggactagcc gcatgagata gcagccccag ctgctgctgc 300  
 tgctccagct gctgctgccg cagcctcggt gggctcccg gtaatacttc ggcatgtcgc 360  
 tcaagtataa attgcacgtg gaaatggcta attcaagggt tccttttagtc atctttggta 420  
 attattcctc ctcttcttcg tccatggcgt aaatggcctc agcatgtgtg gtagacacca 480  
 atatgtctcg gttacggcag ctatgtctcg ttgtagctga gttagcgta actctactat 540  
 tgcaggtgtt t 551

<210> 5419  
 <211> 524  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072b11a1  
 <400> 5419

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 aatgaatagg ggtaatggga agataaggta cacgaaagca aagccacaac aggcgcaaca 120  
 cagcgacgca cgcacgacgc acgcgaaata accggggccgt gggctgctgc atcggtagta 180  
 tgctaaccgg gttctagggc cggggtgtgt tcaggcaaaa aacgaccagc ctgggatatg 240  
 aaagggcgtg ctgggtatgg tgtattaagt gcagctaggt ggccaggggg ggggggtgagg 300  
 ggaacgggct ggtgttgaag cgcgagcacg ccgggtccac ggtatgcgag accaagcgcg 360  
 aagcccgggg gagcaaaca agtgggggtg gggggcccga aagaagtaca catttgggggt 420  
 aactgggact gacaggctgt cagtacaggg gctgtgcccg aagatttaca gtagcgcgat 480  
 acggcatggt aagctgctag gggcacgcgg gcagcaagat gggg 524

<210> 5420  
 <211> 514  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220072b11d1

<400> 5420

taatctggct gnccggtaat ttgccgatgt cacactgttg cacgtccacc tgcttggggg 60  
gggggggggg gggggggggg gggggggggg gggggggggg ggggcggggg gcccgggggg 120  
gggggggggg gggaaaaaca aatccccac aactaccct tcctccatt tgtgggaagt 180  
aatattttt cccggaattt tacccttggg ggggtctaa cccggttttc accccccaaa 240  
atctgcttg ggtccccag aataattttt gcaattcca aaggccctt ggcccttat 300  
ttacttttg gtagaagggc ctacccaat ttggttggt ttagattaat ttttgggcca 360  
actgcgccc aaataagaag ggggttacct gtgtgtattc cacataaac aaacttgct 420  
ggggccctta aactttttt cccccaaaa catttcccg atggctcgta tccattttg 480  
ggctgcccg actttaacgg ggtgttaagc tttt 514

<210> 5421

<211> 621

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220072b12a1

<400> 5421

gatcgagtgc cgacggtatc gatctattgt aggaatgtac ctaggtacct gtacactggg 60  
gacactcacc gtgcaccaga ggctcgcaac aagtgtttaa aacagcggcc acaccatcaa 120  
tgctcccaag gtgggggttc caaaccacca agaagtattc agcgtaactg gagctcgatt 180  
aaacagccgg acacgtctta agggctcggg agtcagagt cgatgcaaca gcaactgtac 240  
caacttaggt cagagggtaa gaaaaagggt tggccatag tgacaaggag ggcgaccgc 300  
ctgtcaaact agccccagct aaagtgggtg tcgttcgcca cgtcataggt caacaaccaa 360  
catcagaaac gcatgctttt ccagggccac aaattgggtga cactgaacc ataaccacaa 420  
aagggtcaaac cgccgcgcc gcagcagcgg cagcatttat actggtacca ggggtgtac 480  
cgtagctact tgtccggaa cgtgaaaagc gccctcaagc agatcgtcag gcgcattaag 540  
cggcctaata aataactaag cttaaagaac cagaagcagc ccctagtcgc gctaacgcag 600  
tacacgcctg taggtcaaca g 621

<210> 5422

<211> 298  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072b12d1

<400> 5422

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cccccccccc ccccccccc cgggcaccca ccccccccc ccccccccc ccccccccc 120  
ctcgccccc cctgcccctt ttataatac tctatcaa atcctttatt cttaaccctc 180  
ccccctcac cctctaccct cccctctcct ctccaacccc cccaccccc ccacccctcc 240  
ccccctacc cccctcattc cccccaaaa tccccctctc cccaccccc cctcccc 298

<210> 5423  
<211> 573  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072c01a1

<400> 5423

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cactctcctt agatgcacaa ctagatccct cgttttacag agacacgtgt cccaagggtc 120  
actccattgt tcgcgaagt gtgaggaacg tttccaagaa agatccccgc atgcttgcca 180  
gtctcattag acttcacttt catgactgtt ttgttcaagg atgtgacgca tcagttttgt 240  
tgaacaacac tgccaccata gagagtgagc aacaagctct gccaaacaac aactctctaa 300  
gaggtttgga tggtgtgaac gacatcaaga ctgcagttga acagggttgc cccggcgtgg 360  
tttcttgtgc tgatattctt acccttgcat ctgaaatc ttctattctg ggtggtggtc 420  
ctgattggaa agttccattg ggaagaagag atagtttaac agctatatcg aacccttgcc 480  
aatcaaaacc ttctgtctcc tttcttcaac cttactcaaa ctaaagctgc ccttgctgtt 540  
caaggctctg acactactga actagttgac ttc 573

<210> 5424  
<211> 458  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072c01d1

<400> 5424

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ctttgggggg gggggggggg ggtaaaggga caagttgcc aactttggta ctgtaattaa 120  
ccctagaagg gaagcaaagg tgaatttagt caggaggaaa gggctagccc caaggagtca 180  
gcgagagtatt aaaatgcggt gtattttggg taaaaggtaa atggagtaac ggtagctgg 240  
ggaacggatt ggaccatgac attggaataa aaagaagtga ccgaaaagca cacgaaagaa 300  
tggcaggtag aagcgtatgg actatggaat tggtgggaac ctagagctaa acgagagcaa 360  
gcggccagta ctagtgttag tttggaacga gctagaacat taactaacga gtgagtaggt 420  
agctgtgctt taatagaaga tgccaaagggt ggaagtgg 458

<210> 5425

<211> 495

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072c02a1

<400> 5425

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cgttcctcgt aacgctattg tttcttctca atgcttcgat caaacgaag acaccgaaaa 120  
ataatgacaa gtgggccatc acgttcgtgc tctcacgtg cctccccttt gcgacgctcc 180  
aggcattgct catattcttt gccctttcgc agaaccgagt gccggctgaa acctcggtgg 240  
ttctcaacga cggctacggc ttcgagaccg tgctctgcgc gtaccctttt ctgagtagcg 300  
ctctttttgc tgtgtttggc gttacgtact cgacgtgggt cttgttctcg tgttggaggg 360  
ttttgtcgct tgtcatcaac aaaggcttga ggatgaagat ttacgtgctg gcttggtattg 420  
tgcttggtgc gattccgctg caaattgtaa cgttgggggt catcgttcgg tggagccccg 480  
accaggaggt tcacg 495

<210> 5426

<211> 575

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072c02d1

<400> 5426

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gggggggggg gggggggggg gggggggggg ggggggcagc acggcacaca aagcaccag 120  
aacaactgag aggtggatgg cagaaaagga cagaagtat cgacaaagcg tatcagaaca 180  
gttaaccggg ttctaaagaa tcaaatttta cataaagggt ttattgtatt ctgggtgggt 240  
ccagcagccc agaagtaaag gcagagcaat aaagcataaa aatactgcta ttgaaaggag 300  
gaatggaggt ctgcagaggg ttatgggtgg aatgttaggg ttggcgtaat ggtacaaggg 360  
gtacaactta agtgtgttgg taaggcagct aggggactgc acccgcggtg acgcaaaaaa 420  
cagttagtat taggggttat gcccatagta gtagaggag ggctatgctt agagttaggc 480  
tgagaagggc taaacttagg gcagcggaat ggctaggag gataggggga gccttgcaag 540  
tgggttggcc aggggcgaag ttatgcaa at acaac 575

<210> 5427

<211> 298

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072c03a1

<400> 5427

cataaatttc cctttaagca cttatgagaa ggaacttgaa gagatgaagc acatgaccag 60  
gctagaattt gtcgccaatt taagaaggaa gagcagcgga ttttcaagag gggcatctgt 120  
gtatagaggt gtgacatgac accatcaaca tggaaggtgg caggcccgaa taggaagggt 180  
tgcaggaaac aagacacacc ctttaggaga gaccacaaac atatcaatcc cgcatgatta 240  
tatgactatg atacaccttc agaggggtga aaaaagaaat ggaaaatata aataaata 298

<210> 5428

<211> 554

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072c03d1

<400> 5428

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 gggggggggtt aggggtggggg gtattttgtg caaccgcgag tagacgtaga gaagtagctc 120  
 ccaggcagag cggcgcccggt gtgttgaaac ccgcgcgtgg cgggttgcta atttggttga 180  
 ggtcccttgc ttattgggta gcggcagccg cgtggcgtat attgtgagat atacagcttt 240  
 tgtggcaaaa gttctgctgt ggttggtgga aaggcctcat aaaggtggct tgccgtagcg 300  
 ctggtagtgt ggtaacggtt ggtgtagaac gctggaaacc caaaggagc tgtcacttca 360  
 aggttcactg gatcgatctc gctagctcat cgtagactgt ggtgagacgc gtattgaaag 420  
 gtaaggtatg ccttcgtcag ggataatcgt cgcattgcca aaatttgcct cggatttaat 480  
 ggaagtcttg gctactatag tttttgggtc ttactgcctc gaagactcaa cacctttcta 540  
 ttcagtctgt ggg 554

<210> 5429  
 <211> 471  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072c04a1  
 <400> 5429

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 agataaatga cgataacgta tattccttaa ccaatgataa tgtgacaatg tcaagtgtgg 120  
 aggagcctaa gccaaaggaa tgtgatagta aaatgttaac ttcaccgtct gctagtcctt 180  
 tcactaaatt taccaatggt aaagaacata ttaaggattg taagactgca aaatgttctg 240  
 aaaatcagcc tcatgtagca ttggctcaa atttggtgca aaagacctcc tggttgagtt 300  
 gctgtggatt gtttgaagtt ctgtcaagtt caaatagata atttcagaaa tacaagatac 360  
 aagcgtcaag cgtgagtatc tcaaatgatg ggtcaaactt gtgaagattt agaagaattt 420  
 tgtgatattc tgatttagat tatctacttt aagcttttca aaatatatag c 471

<210> 5430  
 <211> 584  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072c04d1



<400> 5430

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gggggggggg caaagatgca agatgcggcg gactgataag agatggtaaa taaatcgacg 120  
cagaaataaa tcggcgagcg aggagatacg ggccttgccg gcttgctgag agaggggcaa 180  
aactggaaac cacagaagtg aaagtaaaag agtataaaag gtggtgaaag tgggtataacg 240  
ggcatttagt agggcacaga tgtatctggc atctggcgag tggcgagggt gcaaaggagt 300  
gagggcaatg gcatacaatg gtaaataagt tataactaatg taattaccac cgtggggcta 360  
ttaaagggcc acttaagctg atagcacctg caggggtaca ataggggcta cgtgggataag 420  
ttggaagagc ggtgggatta ggccgaaagg gacgcaaacc atgactacat ccgcaacgga 480  
ataggggatg agtatagggt gggcctggaa ctgttggtat atggcatagg cgtataggag 540  
taggcccga gcaagagatc ggagtcgtag ggagtggtag gctc 584

<210> 5431

<211> 430

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072c05a1

<400> 5431

cattgttgta ggttggtgat tactatagcc tgtaaaattc gatattctaa cctcgtgagg 60  
ggaatgagat cggccgtgtg tgagcgagct tggctggtaa aggcattgggt cctgtcatcg 120  
aatgcaagtt gacaactact gcctattgcy ttgccgtgcy gcatcacgat cgtgtcgaga 180  
tcatgggtcaa cgatcagggt aacagatcta ccccatccta cgtggctctg accgtcacac 240  
tacggatgat ccgtgatgcy ggcgcaaacc aagtcgatat gtaccctgcc aacaccgtta 300  
tgaatgctat gcggttgatt ggaaggcgta tttccattgc atcagtacac tgtgacttga 360  
cattgtagac gttcaagggt attccagccc ctgctgcaaa acctaggatc gtggcgaaact 420  
acaggggggc 430

<210> 5432

<211> 460

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072c05d1

<400> 5432

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gggcagctgc aatggacagg agccggtaac gacaaatacc ccaaaactat agcccagaaa 120  
gcgcacaaaa cgcaaagact aggtagatta gaagcatatc tgcagaggga aatggaacaa 180  
cccagaggga taaaagtaac agtcattcag cacaagtggg tcatggagcc acggttgtaa 240  
ggagcccgtt acgcttcagg gtatgcttac tgcagccatt agatggagat agcctgttat 300  
ttcaagtatt agtactagct tgccaaatag tgctctgagc agcccaggat aaagctgtga 360  
taatgatagt aggggagatg caaagctcgt ggatgtagta acggccggta tagtgactta 420  
ggccagactt gctctaagac cagtgcctaag ccgtggagga 460

<210> 5433

<211> 250

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072c06a1

<400> 5433

ctcacagatc gttccattga aatcaaggga tctaaacttc aatgggcata caagaggat 60  
ctaattggcca gagcattaga taaacactcc tatcactata gaaccaggct gatagcattc 120  
atagaaccct ggcggtact gctctaaaga tgatagatcc gtgaccagta agtgctaacc 180  
attcacaagg tctacgatgg gtcgccacga caaaaccact tgctgagata tatgtttgac 240  
atacagataa 250

<210> 5434

<211> 497

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072c06d1

<400> 5434

ttaccagcga tttggccgct gctacatgtg taggagtgcc gctgcttgg gggggggggg 60  
gggggggggg ggggtggggg gggggcgggg gggggcaatg aggtggacct gggaaaagag 120

cttggagaca agccccaaga aaaagggat cttctacacg catgatgagg gataggcggg 180  
 accgtgaaaa ggcttacaag tgaagaccgg tatgagcacg gagttgactg agggacatac 240  
 gtaccgaccg taaatgataa ggccaggagt agagatacta taaccagtgg ggtttaaag 300  
 accaggctta aggtattaat tgttgccacg aatctcatta gagcagtggg gtaagccgtt 360  
 tggagtaagg gtcccaaaaa tgccagtagt tggccgaaat gggtcactaa aatcgctatt 420  
 atgagccatt agcgcagtaa aaactgctaa gggtagcaac atgccagctg caggccctcc 480  
 cgccaattat tggagcg 497

<210> 5435  
 <211> 404  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072c07a1

<400> 5435

tgactcattt agcttcgatc gtatcggtag aaatgtagcc aagtgcctgt acaccgttaa 60  
 accgtcaggg ggatggcgcg tgaacgagg gtgagcgacc gagacaggta aaagagtgct 120  
 attgtcggct ttggaggtag tgcgtgcgtg agcggaagtg tgtagtgggtg cgcttaaata 180  
 ctgttagcac aggtgcaggc gaggcgtgca agaggagcaa ttgcaaggca gctacaaagc 240  
 tagaagctac aactacacac aaaacccgac aaaactggaa catagacacc caaaatgggc 300  
 tggagaggtg ttgggggttt ggtgggtgaga tatgcgatag agagatcgag gagcgccctgt 360  
 gtgataccat aaaactaatg aatacaagct ggtacatagc taga 404

<210> 5436  
 <211> 515  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072c07d1

<400> 5436

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 gggggggggg gaaatacggc acaaggtagc gaaaagttaa ctgcctagaa gcttaaaacc 120  
 tcgggggagg atagcagaat cagaagacag actcgaaggc ggagggaagc tgccgttata 180

gtgcgactac ataatagacc ggaaaagccc gcgagttaa cggaacggat ggcgagacca 240  
acctaata gta cctagctact ggtggaatta cgcggggcta gcttactagt aaggtttggt 300  
aggcgtaaaa gaacccgagt tgttacatta ccactagaag tatggcgacc ctgcacgggt 360  
ataactgtac tgctgcctgg cgtgcaggtt agcgacgtgg gccataaagc gccttgtaat 420  
ggtatagccg acgtaccagt atcaaggtct ggtaagcgcg aactggctac cataggcatc 480  
cggcgagcg agcaagtctc aacgtcaacg tgggc 515

<210> 5437  
<211> 545  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072c08a1

<400> 5437

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caagctgtac gcaacgccac acctgactaa cagtgtggta aggctttcac cagcgcccgg 120  
atatggcgca aatgctccca gatggggccg gctggtagcg ggaggtatct gccactacg 180  
ggtggctgct ggcgctgcac aagaaacaca acgtaatagg gcggtcacag tcggggtttg 240  
gtaaacacgg tggtagagcag atattatagt tgcgagggat accgcacgtg gggcacaac 300  
atagctacct gctgatcccc gctgggtcgt agtggaaaca tagcgggtaa caatggcaac 360  
acgcgtccct aggtcaagga tggaacgtaa tactgcagac cctgaatgat ggaagcatta 420  
actacctgaa caggcgcta agcatggcta ttagctact gtgaaacaac aaacaggggt 480  
gttacggacc gggtaacgag cataatggct gaagccaaca aacgctttaa aggggacaaa 540  
ggcac 545

<210> 5438  
<211> 554  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072c08d1

<400> 5438

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ccatgggggg gggggggggg gggggggggg gggggggggg gggggggcg gggggggggg 120  
 gggggggggg gggaagggag gggggggggg attccaaaca aacccccaaa acccaaaaac 180  
 ccccccccaa aaaaaatccc tttaaatccc cctttaaaaa aaaaaaatt ttttttttcc 240  
 ctttatagaa aaaaaaaaac ccccaaaatt tttttcccca aaaaccccca ccccaaaata 300  
 aatccaaaaa attttctccc tttttttttt ttccccccct ttaaccccca aaaaaaatt 360  
 aaaacataac ccccaaaaaa accccccgga aaataatttt attttccctt ttatagcccc 420  
 cccccagta ccccccccc cttttagccc aaattttttc ttgggaaaaa tttcccccaa 480  
 tttgtttttc cccccgaaat ttccctttaa aaaaaaacc cccctttttt acaagaacc 540  
 cccaccctt tttt 554

<210> 5439  
 <211> 595  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072c09a1  
 <400> 5439

tagatatggt gtcgatctat cgttagaaat gtaccaggta cctgtcacca aaatcacaac 60  
 aaagcgagta caaataggct tagtttgcta cgatgttggc gaagatgtag gggcagggtga 120  
 gttgtgctg gcggttagtg gtaacagcaa acaataaagt tattaccgtt gaaattttgt 180  
 ttaaggaggc cgaattggta tagctgcccc aaatgtttat agtcggtttg gtaactttgg 240  
 cttaaaaagg agccatttag aagcggtaga aacggcccat aacgtttaat tcggcgacgg 300  
 gttgttttgc aaatgctaca ctgaggttgt aaaatttagc atatgagtgg gctgactacc 360  
 ttaaaaatgt gactggtaca agatagcgtg gagccaacga acccttgact cgggtgtcac 420  
 gagccatttg aggcctcgaa tcgcaaaaac ggcgtatta tataatgggtg cacgctagta 480  
 aaccgtcaca gcggtctgtt aggcaacaac caacacggac cacgagggcg caacgtatgt 540  
 caaaaactac tacttgtatt cgcagcgcac aagtgcaagc aataccggcc cact 595

<210> 5440  
 <211> 525  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072c09d1

<400> 5440

gcgtgagctg ccgggtaatt tgccgtgcta catgtgtgga cgtccgcctg cttggggggg 60  
gggggggggg gggggggggg gggggggggg gggggggggg gaaaaacgta aaattgggca 120  
gggcaaaagt gcacgacaag taagagagaa agataggagg caggggataa gcatgtacat 180  
agaaatagtg acagttagtt gaaggttgct aagaacaact gtattaagtt gaactaccta 240  
agggaaaaac agaaacaatg aaaagcaagg gggtgaaaca gaaagcaatt agggcagtg 300  
gaggggaggg ggggtgatgt aagtcaaacc atttgagggg aactgggcag aaagacctca 360  
gaacggccga gactgactaa ccctggctgg tggccgacgc aaaccttaaa gagtgtatgt 420  
agagtgaacg tagtaccaca tatattaaag ccaactgttt aaggcaacta agctatgaag 480  
gcacttaaaa taaccttaaa gcgccgtaga tttaaggcaa gttta 525

<210> 5441

<211> 633

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072c10a1

<400> 5441

tagttatgtt gtcgatctat cttgtagcca atcgtaggag gtacctgtgc acggtgacgt 60  
gtgacacggg gcacctggca ccaggttaca atcactcatt ggtggtcggg tgtctaaacg 120  
ggaacgtagt agcccgaacc aaaacatgta tagtaatagg cgtcgtaggc catagcggtca 180  
tgtgccaacg taatgattat gccgtagggc agtgataact ggccaccgag gcataactcg 240  
cgcaggcaca ccggtcacia ccacctgctg cacagcaata acaccgtagg taacgagctt 300  
gcccgtggc ataactgtaa cctgcactct caaacaccaa ggattaggca gaggctgggc 360  
gccaacgggc aaattattaa cgatgatgct atacgtagtc agctttttcc atagtcgcat 420  
gggagtaaca atagcaggat gccgattgtt tacctgcagg cgctgcgttg gagtaggcat 480  
gttattatgc cgccggggca actgccgagg gtgaaccagc catacatgtc gcactagctg 540  
tggtggctgg gtatttggcc gcgcaactac agcagtgtct ctgcgaatag cagccagctt 600  
atgattttca cgatgtgaac tgaccgagca gca 633

<210> 5442  
 <211> 612  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220072c10d1

<400> 5442

ggagtgaagt gccgggagat ttgccgtgct acatgtgtgg acgtctgcct gcttgggggg 60  
 gggggggggg agaaaatggt cggagaaagg aaagctaata gaaaatagtt tgtactacta 120  
 aaccaaagcc atgaaaattt gagactgctg gcgcaaaggt caaagagtgt acatgtgggtg 180  
 gattagtaaa ataaaaaata cgatgtagta aaaataaata ctaagcaaaa ggcattattc 240  
 ttcagtaaca attgacgggg caaacggatc ctgatagcaa agtcctacaa atggaaaaag 300  
 agaatggaaa taaaatattg aacatgtgct aaccagaaaa tgatgagaaa ccacgaatta 360  
 tcagcagcag tatagcgtg actaaaaggc tttaaagcta agtatgggtg tggcctactc 420  
 cttggccgca ttggcctgtt ccaccccggt ggtgggtgtaa tatgtggcag catgttcata 480  
 cttatacggg catctagcgt ttgtatacta aaatcattaa cccaccaga tgtacacaaa 540  
 cgggtaatta ttagccctgg cgggccaagt agtggaatta gattgctagt attaggtggt 600  
 aaaaagggcc ct 612

<210> 5443  
 <211> 605  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220072c11a1

<400> 5443

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 ctattaaccg gggggtagca tacatccacc aacaatgtcc ggactactag taggggatgt 120  
 gtgcatccct accagataga gatacgtaag actaccttga agcgtgcaat acaggattgc 180  
 gtatggcggg taaatgtag gtagtcgaag aatccgatcc ctagctacag attacgctag 240  
 ctagggccgg ggctgtgca ttagcagctg atggtaagct aggtaagagt gcacagagtg 300  
 ccaccgatcg ggggtggtag gcaactgcac cagcgtagg accagctagg gctatacgcg 360

aggcccccat gtggcacgcg ccgccactaa caaggataac gataacggaa cgcgctgtat 420  
 ttgcaaggct aatggacggg acgaaaacta gcaacggatt aaataactgg cagccccaa 480  
 gctacatgcc tgatgagtac gcgatcacag gtcgagctgc aacaccaaac acatgggngc 540  
 cgcatacggc agcgggttaca gcagtaagtc acgcagcaca tcgtcggcag cattcgcaca 600  
 gcgtg 605

<210> 5444  
 <211> 486  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072c11d1

<400> 5444

cggttcgagt tggccagcag gtttgccgtg ctacatgtga gcacgtccgc ctgcttgggg 60  
 gggggggggg gggggggggg gggggcgggg gggggggggg ggggggcca ctaaaagggg 120  
 ggagtttaga gcgaggaat taaccagca gcaaagggt ttctatagg caacccaaaa 180  
 tatgtccgga gccttagaat gtatgagtat ctgcaaagag gatattgcct ttgggggtata 240  
 tggtagctga gctattagtt gagctaggga tatggggtaa gagtgccaa aaagtaccaa 300  
 ggggcagtat tgaaaatggt ggttgggtca ggagatttta ctggcttcaa aaaccacaaa 360  
 agtattaacc attagaccg aaactaacag agcataaaat gccaaacggg ctttaatagc 420  
 gggtgctaga ccttaacgga aaggggttaa atgtcggcgg gagccctgga ttgcttgggg 480  
 accaaa 486

<210> 5445  
 <211> 519  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072c12a1

<400> 5445

cgatgacgag gacggtgcga ctattgctag aatgtccagg tccgtcacag cgggtggggc 60  
 ggaagcagag cgagagcat ggcgaggta gaaaagcggc cgccggaata ataataggta 120  
 gatcttgggg gacttaaagc atcgcaagat tgaagggcac cggccaattt gcaacgcaac 180



accaaagagg ggtgcagcct tgtgggtata aaaaaacgca aaatgagggc caggctagta 240  
aaagccgccc cgtggctagg tagaataaaa aaatggggca ggcgggcgcg cgctggctcg 300  
agctagcgcg tagcgcgca aaccaggaca cggacattgg ccgcgacca acccgagctg 360  
ggacgccaag gtcagttacc cggaaataag tttgccaac aaggccacgt ctggcactga 420  
aacgcagcgt gctgaaacac gcgcggacag gcgaggata gcgtgggtta gggctagggg 480  
tagactttgg ctgggtgacg ggtaggcatg gagcgcggt 519

<210> 5446  
<211> 565  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072c12d1

<400> 5446

agaccgtgag ctgccgggga ttggccggtt acatgtgtgg agtgccgcct gcttgggggg 60  
gggggggggg gggggggggg gggggggggg gggggaaggt aaaaggtgga gaaacggtag 120  
gaaaatagca ataccaatac ccgtgacgat aacggtacga tagcgacaca acgaggacta 180  
ggggtgatca ccacctgaac aaacacaaca gcatataaaa gttaaaataa actgttaggg 240  
aacttagctt gttatgtcgg ctgcgttgca ggagtgccaa cacactgaag ttaacaaacc 300  
acaatataga acgtaagcca atgacaaact aaccctgagc aaaagctaaa gcccaacata 360  
gcgaaaggta aggggaatata tgttgagta catagtattg gactgtaact catattaagg 420  
ttgggtaccc aggcgggaat ttgccagtca aggttatgaa actagatttg ggttgatatt 480  
aaccgtgaat gtgaagttgg gatatatagc atatagctag atctagctat atataaatag 540  
ataaaacggg ggggcggagc aagct 565

<210> 5447  
<211> 547  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220072d01a1

<400> 5447

attaaacccc tccaactcat cctccccctt ctcacagaac ctctctctca cagctccaaa 60  
 gccacaagcc tctctcgacc tccccgaagg caccaactgg cgctacagcg agttcttgaa 120  
 cgccgtcaag aagggtaaag tcgagcgagt caggttcagc aaagacgggt ccgccctcca 180  
 gctaaccgcc attgacggcc gtcgcgctc cgttattgtc cccaatgacc cggacctcat 240  
 cgacatcctc gccatgaacg gcgctgacat ttccgtcgcc gagggcgaaat cccccaacag 300  
 cttgttcaac atcataggca acttgctctt ccccttactc gcattcgcgg gcctgttctt 360  
 cctcttccgc agagcccaag gcgggcccg cgggcctggc gggctgggag ggcccatgga 420  
 cttcgggcgg aacatgtcca agttccagga tgtccccgag accggcgtga gcttcgctga 480  
 cgtggcangc gcggaccaag cgaagcttga attacatgag gctgctgatt tcttgaagaa 540  
 tcccgat 547

<210> 5448  
 <211> 573  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220072d01d1  
  
 <400> 5448

gaagtgcgtt cccgagtaga tttgccgttc tacactgttg cacgtcctcc ttcttggggg 60  
 gggggggggg gggggggggg gggggggggg ggggcagcac ggcccacaaa gtcccacgaa 120  
 caactgagag gtggatggca gaaaaggaca gaagttatcg acaaagcgta tcagaacagt 180  
 taaccgggta ctaaagaatc aaattttaca taaagggttt attgtattct ggggtgggtcc 240  
 agcaaccag aagtaaaggc agagcaataa agcataaaaa tactgctatt gaaaggagga 300  
 atggaggtct gcagagggtt atgggtggaa tgtaggggtt ggcctaattg tacaaggggt 360  
 acaacttaag tgtgttggtg aggcagctag gggactgcac ccgcggttac gccaaaaaca 420  
 gttagtatta ggggttatgc ccatagtagt agagggaggg ctatgcctag agttaggctg 480  
 agaagggcta aacttagggc agcgcaatgg ctagggactt atagggggag ccttgcaaat 540  
 ggtttgcgga ggggccaaag ttatgcaaat aca 573

<210> 5449  
 <211> 529  
 <212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072d02a1

<400> 5449

gtcaacgtgg ttggagttgt tggaccagga aaggaaacaa taactcgtaa ggtttatgag 60  
gtaattgccc caagttttcc tgctcattgc tttcttcctg atgtgggaga aaaaattagg 120  
gaacatgggc cggaatatct ccaaaacatg cttgggcctt atatgcttgg aaattcccag 180  
gaaggagtgc catttataag gcatgagaag gttcttgcag ttttggattg cattgactct 240  
ctggattcgt tgaaagctgc tcttggactt actcctcgct ttgctcctgg aagtcaagtc 300  
ttcattatag ctccagatat aactttgctt gaaaataatg gaattgaaaa ggtatatgaa 360  
gtaaaggggt tagacaagac atcggttat caagtgcttt gcctagaggc tttcagttcc 420  
atgaatatga gtttcaaata catggacatc ataagccgtg ctgaaacttg tgctgatggc 480  
aatccttggtg ctttgaaagc tattggctcc agttttcgtg gaaaaacaa 529

<210> 5450

<211> 603

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072d02d1

<400> 5450

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gggggggggg ggcaatagca caataccggt aaggggtaga gcgctaagct aatagaaaac 120  
ctaagctgca agctaaggct acgtaagaag catgagcagg tgggaacatg gctgtggcgg 180  
ttacgctagt gcgagcgggg ctgcggtaag gttgataagt gaaatacaat acgggagtgg 240  
gcttaagctt aagacgagta aacgaataaa aaataacaaa caaaataacc ccgtaacgag 300  
tagcagtgta gacagtcagt ttgtatagta ggtaaacgag ccgggaggag aaactaagaa 360  
gaactgtgat atacactact aggggccacg tagacagata gaggtagtat ggttatgggtg 420  
gcaagttatt agctggcttc aatggcttag ctgggttagc tggcttcaat ggcttagctg 480  
ggttagctgg caatggattc gctttcgctg ctggcaaggg gttagcgctt agcgcaactat 540  
tagcgctaga ggccttagag caattagccc acttagcaca catagccgca ctattagaac 600

<210> 5451  
<211> 528  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072d04a1

<400> 5451

ccaaaatcaa atcacccaaa tccacatcag aaccccatTT tcttcacact cagaatcttt 60  
cttgggtcttt ttcttgaatt caagtaccaa agtttgagtc ttttccgact ttgggtgaac 120  
cccattgaag gagccgcac tgggtgttcg tgtgcatgcg gggtttgcc aatctttaag 180  
cttttcccca ttctgctgcg acccaattga tggaactcta atgggttctt tggaatcagg 240  
gatctcattg aagaaagggg gcttggttcg ttctcagttc agcagaaaag agaagaacct 300  
tttttctcac aggttcagat cgagcttctc gaggttgctc ttcaagaagc tgcattacgt 360  
gcaatggatt tgcacggtgg tgggtgttct gtgcttggtc attgcttcc aaatgttctt 420  
gccagggctg gttttggaaa actccgatga ggggtccttg gaagctgtga gaatgccgtc 480  
tgataatttg ctccaatatg gagacattca cgattgtgcg ttggacat 528

<210> 5452  
<211> 551  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072d04d1

<400> 5452

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ggggaccgaa gacttaaggc acgagagggg gtgggtggtt agaactgaga ggtaaagata 120  
gtaggactgc aaatgctacg acgccagtga gggggggcac aagcaggtaa tgccgctgct 180  
gagggagtga aaaagcgcg ctggtggaag ctgtgagggg cagagcgtag agggccaaaa 240  
ctggtaaata aagcttatgc ttaggcggtg ggaaaaggcc ccctgagggt gcaaatactt 300  
ggaccgccac aaattgtaca gccaaactgc acaagaggtg caactaaaca gctagagtta 360  
gtaaggctgg tgcaacttag aacaggtggg ctgcgctggt gtttgaggca cctaagcggc 420

taacttaacc cgcagagggg tttggggcac agtatggtga agaaaagggc gtgtacaatg 480  
 tgaagaggag ttgggccc aaacaggctta ggtatttgcg tagtaataga ggggtgcagt 540  
 agcccaatag t 551

<210> 5453  
 <211> 381  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072d05a1  
 <400> 5453

gttgtggcct tagcaattta tgttaagaga agaaagtgt gaaaagagaa agttgttattc 60  
 cacatgacaa cgtcatcaac attacacaag gcgcaggggtg gtctctgcga tggcaacctc 120  
 tttctctccg acagcctctg tcggctccat catcttccaa aaccctccca aaggccttct 180  
 tcttctctcc cagcagcagc aacaacgtc cttcgctct tctgcatgct atgcaactct 240  
 ctagctccct cgcgccttcg cactttctcc aagtcccctc ctttccaata gggagaacaa 300  
 cacttgtgag ggctgtact atcgaagaca ttgatgccga aattgccgca actgatatcg 360  
 atgctgtatt aaactactct c 381

<210> 5454  
 <211> 395  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072d05d1  
 <400> 5454

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 gggggatttg cccggaagga aagggcaccc caagcaggaa tgatgataaa agcgtggatc 180  
 aggaaaagtg aatgcatgtc atgaacggta aacgaatggg ccatacagtg ggacaaacaa 240  
 aatgacccca aatcatagga cagaatgtcc cattggagca tttggtgtgt ggaattggtc 300  
 gaaacctagg gctaaacttg tagaagcggc tattattagt actagttggc aaacagctaa 360  
 acgttaagta cctcgaagtg ctaatctgtg gtctt 395

<210> 5455  
<211> 482  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072d06a1

<400> 5455

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cacggtgtgg gccgctgccg tgcccggcgg cgccgcaagg cttaaccctg gcgaatcgtg 180  
gaacatcagc gtgacgaacg gcacaacagg aggacgcac tggggtcgaa caaactgcac 240  
cttcgacaac gcgggacgcg ggaagtgcct caccggcgac tgcgagggtg ttctggagtg 300  
caacaaaaca ggtacacccc cgaacacggc cgttgatttc gcgttgaacc agtataaaaa 360  
cctcgacttc tacgacatct ccctcgtcga cggtttcaac gttccctac agctgacccc 420  
gacctacaac tgcagttccg ttaaattgcgc cgtcgacatc atcggagagt gcccactca 480  
gc 482

<210> 5456  
<211> 554  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072d06d1

<400> 5456

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cttaggacaa gcccgcagaa aaagcgtatc ttctacaccc atgatgagg atagccggat 180  
ccttgaaaag ggggtacaagt gaagaccggt atgaggacgg aggtgactgg tgggcaggcg 240  
aaccgaccgt gaatgataag gccagtggta gaaatacgat aaccagtggg gtttaaaaaa 300  
ccaggcttaa gatattaatt gtttccgcga aacgcattag ggcaagtggg gtaaaccgct 360  
tgagtaagg ggcggcacaa tgccagtagt tggccgaaat gggccactaa aaccgctatt 420  
atgagccatt agcgtagtaa aagctgttaa gggtaacagc atgccagctg cagggcctcc 480

cggcatttat tgggtgcggat caaaagtagc aggaagccag cccggtgcag accttgtagc 540  
aggctgaagc attc 554

<210> 5457  
<211> 460  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072d07a1

<400> 5457

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gtacgcaacg ccacacctga ctaacagtgt ggtaaggctt tcaccagcgc ccggatatgg 120  
cgcaaagtct gcaagatgcy gccggctggg agcgggaggt atctgcacac taccgatggc 180  
tgctggcact gcacaagaaa cacaacgtaa tagggcagtc acagtcgggg attggttaca 240  
cgggtggtgag caggtattac agttgcgagc gataccgcac gtggggcaca aacatagcta 300  
ccatgctgat acacagctgg gtcgtagtgg aacaatagca ggtaacaatg acaacacgcy 360  
tacctaggtc aaggatgcat cgtaatactg cagaccctga ctgatggacy cattaactcc 420  
ctggacagtc gccttagcat ggcgatttag ctacggtgaa 460

<210> 5458  
<211> 497  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072d07d1

<400> 5458

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ggggggggggc ggtagggggg gggggggggg gggggggggg gggggggggc ctagagcgtc 120  
gggggaggat agcgagaatg agaagacaga ctggaaggcg ccctcaagct acccctatag 180  
cgcaaaaaaca tgatatacca gaaaagcccc ctagttagac cgaacggaat acagaccaac 240  
ctaataacc tatctactag aagcgattac ccgcgacaag ctaactacta agatttcaaa 300  
ggccaaaaat aacccgagaa gtttcattac caatataatt atggcgaccc tagcaccccc 360  
ataactgtaa tgcagcctaa cccccaagtt agcgacctgg gccataaatc gacttgtcat 420

tttatagcca accccccagt atcaaccct ggtattcgcg acatgtcttc cataggcaac 480  
ctatccccca aatcaag 497

<210> 5459  
<211> 448  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072d08a1

<400> 5459

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cgtgatagta acaaacacat ccaaagaaac cacagagaac gcacgcagag caatccccca 180  
ccgcagggag agaaagccgc agcaagagca gacaacaaac acacacaaaa aggcacacgc 240  
gtaaggactg cggggcatgc gggaacgcgg tagaaagtac taggttaaca aaaaacagtg 300  
ggccatattg tgatgccacg tgatattaac aaacacagca cacagagcag accgaagcgc 360  
agcgaaggca acacacagac acccaaagga ccacgagtaa gtaccgggga caatgcggac 420  
cgcgggagaa agggatatgc tgggacgc 448

<210> 5460  
<211> 555  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072d08d1

<400> 5460

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ggggcaccaa ctggcgagaa aattaaacag acgcgagcta cggttgagat gttgcctgca 180  
aaacacagaa tggagaacct aaaaatgaaa aagaaagaaa gaaagaagaa ttagactaag 240  
ccagataaaa ggaacttata acttatagca acgaccggcg ttaaaaacgc atgctaatagc 300  
accttaaaat agagccttag actagcagaa tacaataggt attggtatta ctgttaaata 360  
atgctctcag ccgcttgaga cttaggctac cgccaacgct agaggcaacc acaactatag 420



atgcagataa cccagtgccg gctattaagt ttaaggcccg gctgttggga agaatagaca 480  
gatttaaaag gcctacaaaa agagagtcaa tgatgagaag gttgagaatg cgttaaagcc 540  
aacgagggct gtttg 555

<210> 5461  
<211> 623  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072d09a1

<400> 5461

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ttgtcactgg taggcacaaa ctgagtaggc ccggtgcgaa agtaagatag gagcggaagc 120  
ttggtgcttg gagagcgagt tagccagtaa gagggtgaac cgggcgggag gtgtctgaag 180  
catttgccgc tgcaacgatc caacggcccg gcgctactag ggcggtactg aaggcaacgt 240  
tctttagtgg gtggccactt atagggatcc aagcgcagac aagatagcgg ataacgtaat 300  
aaccagatac agcagcaacg actttggcaa cttgcgcaag gggccgtgct ggaggcgagc 360  
ctgtaatgct tattgcaaaa tggaacacaa ggtggctttt cgtggagggtt acgaggcagc 420  
ataaatagcc tggagctaca gcagcagcaa gtactgaggc aactgcacca acagccggtg 480  
taattgcagt cacagtacca gtggaaattg tcagggtatc gagtaaccg ggtagccagt 540  
ccagcaaccg acacatcagc agcatcagcg gcgtaatata gcctagggat gcaaagctac 600  
gctactgctg tggcagaggt ggg 623

<210> 5462  
<211> 331  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072d09d1

<400> 5462

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gggggggggg gggggggggg gggggggggg gggggggggg gggggggggc gggggggcga 120  
ggagcgaagc aaagccatgg ataagtggaa acaactacca caaaaatcaa aaaataaaca 180

tataacccat taataaaatc ccccatacga tgtacaaaa atagatactc agtaaatttc 240  
 attaccccc attaacattt cacttttcaa acttatcctg atagcaaaaa cctaaaaatg 300  
 cacccaaaa ccccatctac aatattcccc a 331

<210> 5463  
 <211> 599  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072d10d1

<400> 5463

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 ataacaccaa agaaagtgag ccacctgagc tagaaagaga agagtatgga ggtagtattg 180  
 gcgtgatata tagccagtgg aaggaaaagc taaaggggca ggagacgaca agaagtaaag 240  
 gtgaactaca acaccgaaac ggaaacggcc tatacggcct cgctgttaac aacaccact 300  
 ccaacttaac ttggcaccga cttaacgtaa aggcgactag cggcgggtgtt aatgcagcgc 360  
 tgттаaggcg caggcaacga aggccggcac aagaatttat tataaagtta atggcccttc 420  
 gatggcccggt gcagttacta gttataaaat ttaactaaag gatagtagga cgagatatta 480  
 ggcaaggtct attaagcagc tgttatatta tggtagggtgc tactatgaca gggagcgtac 540  
 ctatactagc ctttaggtgg cgacatgcaa gcgtgggccg gctaaactaa cgcttaaag 599

<210> 5464  
 <211> 604  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072d11a1

<400> 5464

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 ttgagtctcg ggtttaaata acagctgggc agcgccccag actacaatac tagctgcgga 120  
 tagggctgct accgtgcctg gcgcaaccgt ggaaattggg tgcgctaagg gatgtagtag 180  
 gtagctagac cctggagcat taccgccgct agcagcgcca gggctacaac tgcttgcgaa 240

caggggctaag ccataccctg ccaggacggc cactacagcc gtttatatag gcgccggtgg 300  
gacagcgtat agggagccta gcttgcttga atagccgccg cagcctgttg gtgcagcaac 360  
ttcaatgggg ttatagccgg cttatgctac tacttaggaa gcagtcattg acggcggggt 420  
cagagttaac cccaaagcct agggcgcggg aatgattaat gccaaagaaa ccaatgttgt 480  
ggcacaggcc caaaccgacc agaggcaggc aaacccaaac acgcctgtgt ggccctgagc 540  
cagtactgcg gtacaatgcg gaccagctac tggttggacg ccaatagtag ccgggctcgc 600  
gaat 604

<210> 5465  
<211> 527  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072d11d1

<400> 5465

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ggggggggccc atggatagaa aaccgtaaaa ggggttttgg gagaattacc cccgggatta 180  
gggcatcatt ccccgtagag atgcaaaaag ggttttccgg gttaggatgg gcctaaaggg 240  
gaggatatcc ccccaaatag ccgggcttgg ccatagcccc caaacccaaa aaggcaattt 300  
tggaaggggg ggaaaatacc atttggaccc ttttgtggcc ggcttttaaa ggccgcaata 360  
tgccccttcc gagcccaaaa cccgaacat tcccgaaaca aaaggcccta atacccagc 420  
tagccctcaa ggaatcaatt cccaaaatga ggccttttta tggaaggggc ttagtgagaa 480  
ccctagaaac cctttgcaat tccctaatag cccaattaaa gttgcta 527

<210> 5466  
<211> 545  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072d12a1

<400> 5466

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tgtgtgtgtg tgtgtgtgtg tgcaacagcc tggatatctac ctgtcgagtg gtgtgcaggt 120  
cagttgtttg gtcgacagtg taagtcaact ttgtaagggg tctagtcata gtcacctgta 180  
tcgtagttaa ttcgcttgta ttctatccag atggctgcaa ttctcgtctt cacgatctta 240  
ttctttctct gctgctgatt atgttggttg tgttggtgtt gttccccaac aaccactgtc 300  
ctctctctcc caacagtatt cagcaaggta ttcccaaccc tctcagtcct taccgtgctt 360  
accgtaggcc gcttcgtcgt cagcgtacag gtcacacccc gggcttggtc agtagcattc 420  
tctgccaccg gtgccagtat gtcgtcacct ggcgcgcca acgcctctac tagggcccg 480  
aaactcggcg ttcaattagg ctgagccagc ttattcaagc gcgtcggaca gctgcctctc 540  
ggtgt 545

<210> 5467  
<211> 631  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220072d12d1  
<400> 5467

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gggggggggg ggggggggga tctgccttag ccattaccgc caatacgggt acacggggga 120  
ataggaagct agttaatcgg tgtaattaca aacgaaaaaa gcgatatgtg tggttttggg 180  
gttttgagg aaagaatata atggaaaaat acccccctac gggccttata cataggcatt 240  
cgacggtagt gtatacgtcc taataggaaa agccaaccaa ccaagaattg cagatagggg 300  
tagatttaaa aaagccaaaa ggggcggcgg gcctaggctt aacacggttg aaaggaggaa 360  
agggactaag gataaaaaaa aaaccagga aaagcacaat accctgcgcg cgcaggaaca 420  
tctgctacag gttggactaa ggggtgtcct tgggctaagc attgttgtaa gattcttaat 480  
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cctaatacgg gttggtaatg taatagaggg gttgccctta ttacgcaaca tggactaat 600  
agccaaacct gcctggaaca agtctgcaag t 631

<210> 5468  
<211> 418  
<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220072e01a1

<400> 5468

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gatgtgaatg gcataaaaat gcatgttgca tagaatggag agggcccagt ggtgttgctc 120  
ctccacggct tacctgatct ctggtactca tggcgccatc agattctctc tctgagctgc 180  
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tctatcagca gctacaactg cttccacata gtgggtgatc tcgatgcgct tattgactct 300  
ctgggtgtcc aacaagtgtt ccttgtgact catgactggg gagccatcat aggttggtat 360  
ctatgcatgt ttcgccctga ctaagttaag gcctatgtct gcctcagtgt acctctcc 418

<210> 5469

<211> 526

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220072e01d1

<400> 5469

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gggggggggg ggggggaaaa taaagtaaag tttgggcccc ccaaccaaag cccggtgagt 180  
tttatcgggt taacccccat tttcccaaat ttttttttca accctttaac tggcgtttgc 240  
ggtatggaca tttgttttca aaaaaaaaaa aaccccccca aaaaagtttt tccccccatt 300  
ttggaagggg gaacaaaaaa tttttttttc cccccaggg gtagaatttt gggccaataa 360  
gggaaccctt tttttacccc tgtaaaccct ttgccaaacc tagggcccgt aggttgcaat 420  
tgcaccgcg aaccctgct atacctttg ccgataacct ccggtttaaa aaaaaatccc 480  
ccccctttta ggggctaccc gcctgaaagg gaaagccctt tgatgg 526

<210> 5470

<211> 540

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072e02a1

<400> 5470

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tggtggacga gagaagggac agggagtggt acatcttaaa ctaccaatgc tacaagcccc 180  
ccaacgacag aatgctcggc accgagttct gtggcaagct tatcagacgc accgaaaacc 240  
tgggccccag cgagtaccgc ttcctcctca aagccatcgt cagctccggc atcggcgaac 300  
aaacgtacgc cccaagaaac atcttcgagg gccgcgaggc cactcccacg ttgcgcgaca 360  
gcatcggaga aatggaggag ttctttcacg acagcattgg aaaactcctc gcgaaatcta 420  
acgtctcccc ctacgagatc gacgtcctcg tcgtcaacat ctgcatgctc gccaccgtcc 480  
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<210> 5471

<211> 604

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072e02d1

<400> 5471

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atgtagggtg cgagtaggcg gcgtaggctt ggcggtacac gtgggagaac aatataagag 180  
ggggaaaggt taaggggcaa cgaggatagg ctgggccagg cggtttgga atggccgtag 240  
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ccaatgggtg gacttgggtg gcttacggca agccggatag gccagagcta caggttacgc 480  
aaacccgtat tacagagatt tgctaattgg ctgcttagac gcataggtgt actaattaga 540  
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gcac 604

<210> 5472  
<211> 318  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072e03a1

<400> 5472

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ttatcggacc cttggagaga attataatga aagggtttta ctttcaatca tacatgatac 180  
tttgaaagcc gtggctgccc agttcattgc cattctggtc attactcagc gagaggctgc 240  
cagtcttgaa atccggaaga ttttgactga aagggtgct aacttcaata ttgcataga 300  
tgatgtgaca tttactag 318

<210> 5473  
<211> 516  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072e03d1

<400> 5473

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aggaagttag gctaaaacag gtaaaccggt attcggtagc acgtgaagta acatactgag 180  
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tggggcaaca ggtaatacta cagtagtgca aggtaccgaa attggcgggc ttctcgggca 360  
gagccgagcg ctaagtgtgt cgctactggg gagggttgg atgcgcagaa aactgccagg 420  
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acgagtgggt aggcgttgct gtacttgggg tgataa 516

<210> 5474  
<211> 166  
<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072e04a1

<400> 5474

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tcttaagctg atcgactaag acatctcgcc tcacctgctg gaaaggatga atattcagag 120  
tggggtgatat gcctctcaga gaagtcctct tgtgggtcatg gctgaa 166

<210> 5475

<211> 610

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072e04d1

<400> 5475

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aaacggggcc ataagaggtc aggctgacca agcgaaggaa tagttcatgg caaccgagcc 180  
gtgtgaagcg aaaaataaga aagataatga gaataactga ttggggtggt ataactggct 240  
aacgggaaaa ggagggaaca gttggcacat gacaatgaaa aatgtgaaag agggatttag 300  
cgtacagagg gattgatggg agcatacaga aagtgctacc tataagaaag acttataaag 360  
cagacaaagg gagaaggtag cgaggtaagc tgtacaaacc tgggctgcag gcaatacggg 420  
tattagtggg aacgttacgg gtgaaagggt ggagagtagt taatggcggg ttacagttga 480  
ctgtactgct gagccaccag cttgcaggtg ttcggggcgg agctgctaaa attgctaaaa 540  
ctgtaggtat gtgcttacgg gtacgatacg tggctacggg gccactacat cgtcactggg 600  
ttgcaccagc 610

<210> 5476

<211> 569

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072e05a1

<400> 5476



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 aagagaagtt tgggtggcctc agagatggat attatatcca tgggcaatgt gcgattataa 180  
 tgtttgatgt tactgcccgt ctaacataca aaaatgtccc tacctggcac cgggatcttt 240  
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 ggcaagtga ggcaaagcat gttaccttcc acaggaagaa gaatttgcag tattatgaga 360  
 tttcagcgaa gagcaactac aatttcgaga agcctttcct ctatttggcc aggaaacttg 420  
 catgtgatcc taacttgcac tttgtggaat cttctgcatt ggctccacca gaagttcaaa 480  
 ttgatttagc tgcacagcaa caacacgaag ctgagcttct tgcaactgct agtcagtccc 540  
 tttctgacga tgatgatgaa tcttttgag 569

<210> 5477  
 <211> 563  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072e05d1  
 <400> 5477

gggctctcca gcaatttgc gtttacctgt gtaggagtg cgcttcttg gggggggggg 60  
 gggggggaaa aggtaaaagc taaagtgaga ggctaaatga ggccacgagc aacacaagaa 120  
 aaaacaagca taatagtata aaagggaccg gtataaagta ggatgggaaa aaaacaaaca 180  
 accctaaaat attgagaact tcacaacaaa aagaaagtta agagaaagga tacaagaaca 240  
 aacaaaacca caagaacaaa atagcagggg tttttggaaa aagtcagtaa tgggctagcg 300  
 attggcgtgc gcggctgcca ctatgaaaac aaaaaagcaa tacctattaa aagtggttag 360  
 ggcagggcac agcagcagta aacaagatga ggggcggggg tgggaatata cgcataggcg 420  
 gaagggattg taggatttgt ttggtaaata aataattata ttactgccg tccgggtggt 480  
 aacggcttat ctttcgctg ctccgcgtta tatctaagaa gggttgatac tagttaatct 540  
 agtccaaaga cctggaagca tca 563

<210> 5478  
 <211> 542  
 <212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072e06a1

<400> 5478

gcttgggcta gtttcagatg ctatatcaga gaaggtagat tctctcagaa aagggaagag 60  
tgaagtgatt gaaaaaaacc acatactcat tcttggttgg agtgacaaat tgggctcact 120  
tttgaagcag ttagcaatag caaataagag tattggtggt ggtgttattg cgggtgcttgc 180  
agaaaaagaa aaggaggaaa tggaaatgga catagcaaag ttggaatttg atttcatggg 240  
aacatccgta attttagtaa gtggcagtc tcttatactg gctgacctaa agaaggtttc 300  
agtttctaag gcacgtgcaa tcattgtatt agcttcagat gaaaatgcag atcagagtga 360  
tgcacgtgct ttgagagttg ttcttagcct aacagggtga agggaggggt tatgggggtca 420  
tggtgttgtg gagatgagtg accttgacaa cgaacctctg gtgaaacttg ttggcggaga 480  
actcattgaa acagttgttg cacatgatgt aattggacgt ttgatgattc agtgtgctct 540  
ac 542

<210> 5479

<211> 517

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072e06d1

<400> 5479

gtgaccgtca gcgatttgcc gctgctacat cgttggagta ccgcctgctt gggggggggg 60  
gggggggggg gggggggggg gggggggggg gggggggggg ggaaaacccg gaaagaaggc 120  
tgagaggtgc ccaggaacaa aaaactaaaa ctggcccctt tgataaggct aaatggccca 180  
acaatatggc tttggccaga agcccaccag ttcctgcacg gacacagtac tggtaatattg 240  
ttggcaccaa tgcattccag gctaaggag caactaaacc gcctgtggca caatttgcta 300  
aactaatatt aggaggttgg gccaggttat tagatagagc ctagagtga aagggtatgc 360  
aggaatagcc gacagaagca aaaaacttcc cctggtaacc cagcttgagg ccgtttatga 420  
atcggccagt aacatacccc gagataacct gaagaggtac aataacttgg gccaccaata 480  
agtagtaatt cgcaaattag atggggaggg ttaaatt 517

<210> 5480  
 <211> 430  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220072e07a1

<400> 5480

cgatgtgtta cgatctattg tgtaactgtc caaggtcctg tcacaacaat ccgacatcga 60  
 ttaaagggcg ctaggcgaca gcccacacta tcgacacccc ccctgagggc ctatcggtgc 120  
 acaagcaagc agagcccact agatgctaata ccctgttcgg gtgctcttta taagtagcat 180  
 atagtgtggg aatcaacagt ttgttggtgc taactatggg tatcatgctc catagcctaa 240  
 gagctagtgt caggcttgga ttgacaacag gtaggcataat gcgactaggt taggacctgt 300  
 ttcacgtcaa atagtacca gggataaata gccgggagtt accgcttcag taggttagag 360  
 gacactaggc tcggcatcgc gtttcttggc ttacgaatgc gtcctaaaac tggaagtttg 420  
 agtaaccttg 430

<210> 5481  
 <211> 495  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220072e07d1

<400> 5481

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 gggggggcga caggggtgga tgagcagagg gggaggtatg gattaccccc aaaggggccg 120  
 gtagcatttg agccagttat gcggggtgat tccatgttcg cgttgacagt aaacagtgcc 180  
 cattactcta acataactga aaagtgggtc caacagagat acctgatata aagttaaagt 240  
 aagacaacta ttagaacctt agcggactga tactaacgat gagactagta cacagttgct 300  
 gagtacattt atgcgctgtg gtaggaattg gctccagtgt atgttgaact taagttataa 360  
 gccgcaaaag ttgttggcac ggccaaaaca tacctgtaaa actgtgtagg ccacgccaca 420  
 atagcttaca gaagcttatt tggggtagca acatggccct gcataacaca aagctagccc 480  
 cgctactgct ggga 495

<210> 5482  
<211> 566  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072e10a1

<400> 5482

gctcagctac gccgtatctc tgcgaatgtg ccagggtccgt cactgggatt tataaagaat 60  
gatgggtatc ggtaaattc ggcgtgtggt cagccagtgc cgtaggggc gggaagaggc 120  
accgtgtgac tgcagtggaa gctttgatgg atctaagtga aacgtagata gttagatagc 180  
tgtccgttga atgtgggtta acaagccaag cgggggttag ggagtattaa attattatgg 240  
atagtaaact gaagaattta ttaattgtga tagattagga ggtgtattag acatatgttg 300  
aatagattaa aaaatataga gcggcgacat attagacaca ttatattaat agtgacgggc 360  
ttttagcact taatgacagc gaaagaagct aggggctagc acgtgtggac agaacaccgc 420  
ggtagctatt aattataacc taaccgatat aaccgaagag agccgtggga ataaattttg 480  
gccatataat agcatcgcgt caaagttggt agtatagtag agcgtggtag tataacggaa 540  
actcatttag ttggcggtag acgcgt 566

<210> 5483  
<211> 534  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072e10d1

<400> 5483

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gggggggggg ggcggggggg gggtaggggg gaggggtggg ccccaacgcc caccagtata 120  
aggagttgga tagggacgtg caagagggag ggggggtaga agcccaatgc agtgtgggtg 180  
ggtggttaaa ggccagggtg tggttacatt ttgagtaggg tgtagtcgt aatagagggg 240  
atgtaaaccc agagagggta gcaggctatg gatttgaagc ccagatgaag ctattttttg 300  
aagccgaaag gtaaggggga cttgaatgat tggggaatgg ggcctgggca gtccatttta 360  
gccgcttatt gattttgaat agttacgaga gcggctaata aggtaaacct tgaaggcccg 420

tatagctagg gtgcccccta tgttcgaaac aaagtgtatc ccagggttag gtgggcccac 480  
 ttaagttgga gctcgggtta attagcgggc ctatgctacg aggtagcgtg gcc 534

<210> 5484  
 <211> 550  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220072e11a1

<400> 5484

cgatcggttg ccaggaattt tccgtatgtc ccaagtgccg tacactgtca cttcgtacgg 60  
 gtattttgtg ggggtgtagtg tgaatagtag acgttgtaca cctgacgtgg ttgaggagta 120  
 taaataagcg tgcatacgta acaagtgcac aacaataggc acagagccaa cagtacaaa 180  
 ggcagtaacc tgtgccaact gctgtcaccg aagccgatta ctagcagggt gtgcagaagc 240  
 ttgttatctc agtaaagggt ttcccgtatg aacagcggcc cacagcaagg gccaatgctg 300  
 gtaaatagta aaacgacccg caattcatac gtgcgcggcc cacttaggat ggtgctgtac 360  
 tacaccggca aatgagagaa taaccgtttg ttaaagccgg gccggtggga tatgcccaatt 420  
 agtcgtatgc aacagcctaa ccaaaacaac cgcataaggc aggggcactt gggtaaattg 480  
 agtaagctag tatgcgattg tgcgcagaat aacgggtata tacaactatg caagcaatgn 540  
 ngacaagtgc 550

<210> 5485  
 <211> 555  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220072e11d1

<400> 5485

atgaccgatt gacttaccag gagatttgcc gtgctagcat gtgagcacgt cctcctgctt 60  
 gggggggggg gggggggggg gaaaatatgg tcaagtagca ttgttgaca ctgagggtgg 120  
 caacaagtac tctataagtg cctacacggc ttagagctag atagccatga agactaaaaa 180  
 gctaaaagcg agcaactaga ccaaacccaa aaacgcaagc agatatagtg gagccagtaa 240  
 aaattaaacc ctaaactga acgtggacaa ttagaagtaa gaagagttaa agtagggggc 300

aaccttttaa gtggttaaaa taaacgaacc cgggtgctacg aataccaatg gaagtacaag 360  
 ttgtagatat ggtgttagta gtacagaatg tagtaaagca gtgcagcgta actgccgaat 420  
 caacaagggtt attaagctta ttaaatttgt gctacaaggc ccactttgtg gcacagggcg 480  
 gccgtataaa ggttaccacac tagttaaagg ggggcgatgt aggcctaaat tatgtcacta 540  
 accctagtggtg tggtg 555

<210> 5486  
 <211> 593  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072e12a1

<400> 5486

gatgagagga cggtagcact atcgctgcaa tgtccaggtc cgtcaccgct attatgcgcc 60  
 tccgggatcg cttttattat aatcccagtt catcatttca ggagtaattt cccgtaccag 120  
 ttcaagtgcc ctaactgcct tgtgcccaca cgctggcggg ggcgctcca caaacagggc 180  
 tgcaacccta caccgggcga tgagaaccac ggctggcaca acacgcatgc cgtgccacgg 240  
 cgccagcgct ggcacatgaa ccatcaccgc tatcgtgggt agagcggcc gttcaatgcg 300  
 caaaagctga acctgggctg gaattacagg cgggtaggga gtaaatacca ggcaatcggc 360  
 ggagcgcgcg ctgtgtgctg ggggggagcg cggggaagga gttgggggac ggcgtaagcg 420  
 aaggcgcgag ctaggtgagt ggcgagtcga gcagtcgagt aagtaacgga aacaaaacgg 480  
 cacgagggaa aaaaaaaaaa aaaaaccctc ctctgcatg acgcactgtc gtcatttcgc 540  
 aaggaagggt cgattccgat tgctagctcg attactgggt ttgagacgca cgt 593

<210> 5487  
 <211> 592  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072e12d1

<400> 5487

caattgagtt caccaggaga ttgccgtgc tacatgtgag cacgtccgcc tgcttggggg 60  
 gggggggggg ggaaagatgt aatgggggtg gaatggcagg cagatcagta gatcagataa 120

cagacaagct agatataagg ataggcataa tgaaaaacca gaaggaaaat atagaaaaaa 180  
 catacacact atatatagaa taatcggtaa gttgcgggca gaaagcaa atagtccgga 240  
 actaaacttg gactaggggt atacggcca gttaatagag caaacatcgc atttgtcgtt 300  
 ggacgtgtaa ctatagttat aatgttacat tacgtatgtg gtgtaactaa tgttgagac 360  
 gataaattgt gctttggtac taaagttggt gttcttataa aaataactat gtgtttacac 420  
 cttactggct ttacaggtcc agttgcattt cccggcagaa gtcccgtcgt ccagtttcgg 480  
 cgccgccct atcgaaattc ttatactgcc gctattgtca cttcaagggt cactggatcg 540  
 atctcgtag ctcatcgtag actgtggtga gacgcgtatt gaaaggtaag gt 592

<210> 5488  
 <211> 413  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072f01a1

<400> 5488

aaactcaaac gaatacgttt tctctttctc ttcaatttca cccttattag catagcatat 60  
 tcatttcctt ttcttgaatc gttcttaact gcgagagggg atatcagaga agttgatcgg 120  
 cctcccatta ataacagatc tgaatgatct gatggagtct aaaggcggga agaagaagtc 180  
 gtctagtagt aagtcctttt tgcacgaagc tcctctcgat tacatcattg aagacgttcg 240  
 accacacggc ggaatcaaga agttcagatc tgctgcttac tccaactgca tccgcaagcc 300  
 atcctgagat tgcctaagtc gaggggaagac gtagccccct tagtcctgca tctgctatat 360  
 gtttctagtc tcttctcttc tcctttttct tgttcgttc cttgcccttt tgg 413

<210> 5489  
 <211> 478  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072f01d1

<400> 5489

ggatcgagtt gaccgaggaa ttaccgtgc tacatgtgag cagtaccacc ttcttggggg 60  
 gggggggggg ggggggggga gggggggggg ggacatcatg aaaagcgca gggaggaggc 120

atgtaggggtg cgagtaggcg gcgtaggctt ggcggtacac gtgggagaag aatataagag 180  
 gtggaaagat aagggggcag cgaggatagg ctgggccagg ccgtttggaa atggccatag 240  
 attggggata ggtagaaagc ttggtgcaaa cgctatcgga caattggcag agtggtcagc 300  
 cctaaatggg tggtgcccaa ccgatagctt ttaagtgggtg tgggtgtttgc cgtgcctaata 360  
 acattataac cactaccacg tataggatgg caaagggttat taagagtagg ctaacgatag 420  
 ccaatgggtg gacttgggtg gcttacggca agcccgatag gccagagcta cagggttac 478

<210> 5490  
 <211> 497  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072f02a1

<400> 5490

gcacaaagcg gggtactgtc tgttcaagct accatctctc tctctctttc ttagtgccctc 60  
 cttgccagaa gttaaaatgg cccaagaaac tttcctattc acatctgaat cagtgaacga 120  
 ggggcaccct gacaagctct gtgaccagat ctccgatgct gcgctcgatg catgcttgga 180  
 gcaggaccct gacagcaagg ttgcctgtga aacctgcacc aagaccaaca tgggtgatggt 240  
 tttcggagag atcacacca aggccaacgt ggactatgag aagattgtgc gtgacacatg 300  
 caggaacatt ggttttgtct ctgatgatgc tgggtcttgat gctgacaact gcaaggctcct 360  
 cgtcaacatt gagcaacaga gtctgatgat tgctcaaggt gtgcacggcc acctcacaaa 420  
 gaggcctgat gagattgggtg ctggtgacca aggtcatatg ttcggctatg cactgacga 480  
 gactccccgag ctcatgc 497

<210> 5491  
 <211> 632  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220072f02d1

<400> 5491

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gggggggggg ggcccacgca actagactgg tgtaggaca gctaaatggt agataggtgg 120  
 aaggcaggca cggagttcac aaaggcgacc aatagcgaca acagtttagcg cacattatag 180  
 gtggaccaac gccgccgcaa tgagcgctgc ggaaattggt tggttaagata ggacccgtgc 240  
 tttggcaccg tgtaaccccg tgaagggttg ggactaggct aataatagtt ggtaggcggc 300  
 cttgtgtagt actgggagggc tggatataga caaagcatat gctgacacgg gcgactaggg 360  
 tagctagccg ccagtagctt tgtttgtaga ctgggcgcgt aacaagcgta caaccgtgt 420  
 tgggctgaca taacgccggt tgaatttatg caattaacgc gctatttttg ccgacacggc 480  
 ccgtgaagcc cgcttggttg cgcacaattt gtacgacaat tagcttaaaa tgcgatatag 540  
 tatgtggggg acggagacct gctacgcagc tagctgtanc acttagcgag ttagagcaat 600  
 tactaccgac gcgtgggcaa gcctggccag ta 632

<210> 5492  
 <211> 427  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072f03a1  
 <400> 5492

gttactaaga agcaaattgga gctccgcacc gcacagcgga tgctgagaaa aacctggagt 60  
 ggcggaagat gacggagggtg gcgagatcag tgggtgcacga cgttttgggg caaagggtgg 120  
 tcgacgtgga ccagccaatc gtcgattaca tcgtaaactg ccttgccgac gatgacttcg 180  
 atttcggtct cgacggccaa ggcgccttcg aagccctcgg cgagcttctc gtcgctcgtc 240  
 gttgcgtcga cgatttcttc cactgtcgtc tcgtgtgcag cacgctgtgc gacaagttcg 300  
 ggaagcacgg tttggtgatg gagaagcccc ctgttcgtag ccttgcggtg ccgtttcgaa 360  
 ttgaacgagg ggatggacga cgtgcatgct cccaagaaga atcccgagcc cgtcgacggt 420  
 cctattc 427

<210> 5493  
 <211> 538  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072f04a1

<400> 5493

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ttcaacctta tcaaattaac cccctacaca tttatttagc tagctagcca atttattaat 120  
taggcacata atgggaagcc cagaatccaa tttgccaccc gggttttaggt tccaccaaac 180  
cgatgaggag ctcatctctc actaccttag taaaaaggta gcatccatac ccttgaccgt 240  
ttccattatt gctgaggttg atatctacaa gttagatcca tgggacttac cagctaaggc 300  
cacctttggg gagaaagaat ggtatttctt cagtcctaga gaccgaaagt acccaaatgg 360  
tgcaaggcca aacagggcag ctgcttcagg gtattggaag gccactggca ctgataagac 420  
catagtgaca tcattgcaag gaggagcaca agagagcgct ggtgtgaaga aggcttttgg 480  
gttttacaaa ggatgacccc ctagggtgtc aagaccaatt ggatcatgca tgaatatc 538

<210> 5494

<211> 581

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072f04d1

<400> 5494

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ggggggggga acggttaagat tggagtata aacgagagga gaaaatgaat tgtaagtaa 120  
attttaataa tagcggtaaa ggaatagggg gcgatataaa ggcggtgaa gggcgtagac 180  
aatggccag aggggcgggg aatacgggtg gcagttggca agccgccaag tgggtgggca 240  
ggtttgatta aagacggttg ctggttaact gaataggtga ggtggtaggg gtaagtataa 300  
aggaaggaaa cacaagaaa aaaacaaaat atgagaaggc tgagcgatga aattttgact 360  
gatgaggttg gagtgaagca gtaaaggccg ccgaggtggg ccgcgctgta ctggtgcaag 420  
aggggatggg aaggggttga gggtagggaa gtggggcaga gggcgccagg agttggcaaa 480  
ggcaacagca gcattaacta ggaattctgc aggtagtaaa catgctggtg gcaccgacgg 540  
ttaggcgccc ggtgtcgagg ccggctgcag cggacgaccc a 581

<210> 5495

<211> 491

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072f05a1

<400> 5495

gaaaactctg caaacatggt ggtttatcat gacctcctta caggcgatga gcttgtgtcg 60  
gactccttcc gttacactga aattgagaat ggaacgctgt gggaagttga ggggaagtgg 120  
atagttcagg gagcacttga tgtcgacatt ggcgcaaacc cttatgctga tgggtggagaa 180  
gatgagggag tcgatgacgc agctgccaaag gttgctgaca ttgcagatac aatcagactt 240  
gacgagcaac ctgcttttga taagaaacag catgttacct tcatgaagag gcctatcaag 300  
aacttgactc ccaagctcga tgcagagaat ctagagttgc ataagaagct cattgagggg 360  
tcaaccataa acctgctatc taagactaat gatttcacgc tactcgttgg ggagagcatg 420  
aatgatgatg cttgctaggt ccttgcatac tacaagatg gtgctgctga tccaaatact 480  
tatactttgc a 491

<210> 5496

<211> 581

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072f05d1

<400> 5496

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ggggaaattt taaaaagaaa ggctgtagag gttcggagtg acctaaacct aatagcagta 120  
taccgaagcc gagaaattaa ttgctaagag gcggattagc aatgacgtac cagtaagtgg 180  
tacaagacgt tgagagacgg gaaaatattg ctagataggc ttccgggacc cggaagggg 240  
ttagatgtag aatactcgat aggcacgtta gtgattactc gagggcacag gacaatattg 300  
gccataacac cctacaccaa ttgacaaaag gtttttagttg ctggttagtg gtggacctgc 360  
tggtcatagt ggctagcggg cttgcccata acacccgaca ccagtttaca aaaggtttta 420  
gtttctgggt agtagtcac ctgacgggtca tagtgccatg cgtagatggt cgagatgtgg 480  
tgcaaagagt tttcaatcag cccagttaag gcgggggtgtt aagtagctgt gtgagtaagg 540  
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<210> 5497  
 <211> 522  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220072f06a1

<400> 5497

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 ggaggaagaa gctgaaaacc ctaatctgca gagatgagat gagatgaaaa tgaaaaggcg 120  
 tggaatcagc gcggcaagga acatcgtaga tgcttgctt gggagtgtgg gatctcaaatt 180  
 ggctcctcca attcgtattc tccgcgttcg tcttggcgat tggactgcac gcgctgctca 240  
 agaacaccgc ctccaagtac ttcgagattg aagccacttt ccacgctatg cctggccctc 300  
 tcaccgacca ttctctctgc gccgtttgtc gcaaccccg ccaacaagaaa tgttcgcat 360  
 gcatatccgt tcgatactgt tcacaagcat gtcagcaggc gcaactggaaa tccgagcata 420  
 agatgagatg caaggagttt canggcagcg ccagtgtgat gaatctggat cataactgaag 480  
 taactaatcg tgttttcaaa gcttctgctg ctgtgaatac aa 522

<210> 5498  
 <211> 590  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220072f06d1

<400> 5498

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ataccgtaa aaggtataac cggcggcccg ttattaggtc cctagagggc ctctaaggcg 540  
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<210> 5499  
<211> 503  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmfl02220072f07a1  
  
<400> 5499

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caccgccact gtagcacaat gtcacccaac attgccgaac ttagcttcca acaacgatgc 180  
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acccggctct attattcgca ataacatcag gtacagcagc cacaggctcc acggttgctc 420  
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<210> 5500  
<211> 496  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmfl02220072f07d1  
  
<400> 5500

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accaaccgag aggggaaaag aataaaagcc tttagaatca ataggggggt tacgggtaaa 180  
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aattttgggg gaaggggaaa gggaaaaccc aggcgctag taagggctga gctgcttcaa 360

gggaatcgga aaagcaatag ctagcgcccc aaaaacccag caaaccaatt tcttgaactt 420  
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<210> 5501  
 <211> 571  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072f08a1

<400> 5501

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 ctctgtatta ctagccgcgc agtcgaggtg ggtagagcct aaccccaaac acaggaggca 180  
 cggataaaac cctacactgt aaatgtgttc agtatacatt gcgcattctt atagagagcc 240  
 ggcaacggca cagaggtgtg ttgaccaact gatacacact ttgaatgggt atgcagctac 300  
 acaggcaaaa gcaataacgt agaataaagg gaacgaaggc caagggactg ctggaatgcc 360  
 ataccagat agtagcacgt cgaaaccaca ggaatggcta caaggggagc cactagtaca 420  
 caggctgctg ctaatggaga atatgtatag gcttatgatg acaaggacag gtaggtaggg 480  
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<210> 5502  
 <211> 447  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072f08d1

<400> 5502

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 ggggaaaaaa accccccccc tattgagtaa tttttggggg aggggagcaa tatggggcaa 180  
 ctgggggttat ggaaacattg gttaggtccg gccattttga aggtatagaa gccgtaggtt 240

ttccgggggc ttaagtaaat aatggctttg aaaggggagg ccgaaaaccc aaaggggaag 300  
gataaataat gcgtaaaca aaaaaaacgc cagccaggga aggtgaggac gcctaagcgc 360  
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gggataattt aggcacgggt ttgcgtt 447

<210> 5503  
<211> 642  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072f10a1

<400> 5503

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ttagtggagt tttggaacaa gccgttaaag ttattgaagt tgccattagt atttttggta 180  
ttgcgcaact tattaaagcg tgcgcataat gatgatactg cgctgcagac gctgatggcg 240  
gctgcgaggg gtcacgggcc aaagctggct gggcacgccc cggtgcgtt gtggcacccg 300  
ctgattgctg cacagcatta tgatacggct gctttgaatc atgagtttag tgctaatatg 360  
gagctgcca tggcgtgtaa cactaacaat aatttaggtc cacgcaacct aggcacctcg 420  
atgttcctga aattttaggc cattgggccc tcgaacaata accgtactac gctggaacta 480  
cagaaaccaa agcgcaatcg ctaacaacca cttaagcagc aacgaaagca gacatcaaca 540  
aggaaaatat tactgcagat aatggtttgg gattgggtata gaaaggggtg gcgcttaggg 600  
gaggagcaga tacaggcaga tgaggtgcga gtaaaaggta cg 642

<210> 5504  
<211> 561  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220072f12a1

<400> 5504

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 ccccaaac ccgattagcac aacaacaac aacctgcgtt ataacataat aattatacag 180  
 cataaaacct ggtacactat ttgcaacaca agaccccgca agcttagttt cctgaggcac 240  
 caccgtaaga gtgggaacca gcatcgacgg agttacgggt gaaagttaa acggtaacta 300  
 gttaggctgc tgaagatggc cggcgtagc cgggtgttat aaataaaca cggctaacag 360  
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 cttcactaag gttacaacta cctgttgcaa acacttcgtc cggtaattat actgtaacaa 480  
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 gcacacatta actgctggtg g 561

<210> 5505  
 <211> 563  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072f12d1  
 <400> 5505

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 agggcaatgc gggacacgag agcaccacac aattcaatat tgcaaagatg gggaaaaaaa 180  
 accaaaagta acccaaaaaa aagaaaaata taccacagag agcctcagcc tatacgaata 240  
 agaatatgga acaactactt ggccgtgttg tactactgcg tgtaaaagt gccttgccaa 300  
 taactgttcc catagtcgta gtagtaggtg ttgtggcact gcgccggcaa ttcctcctgt 360  
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 cgttgaaggc cgccagaagc tgaccacga gagtggctaa tgggtgggcg gcgccacaat 480  
 tatgcataat ttaacgagga ctactaagcc agctggcaat gggcccagg acaaatgcca 540  
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<210> 5506  
 <211> 360  
 <212> DNA  
 <213> Glycine max



<223> Clone ID: jC-gmfl02220072g01a1

<400> 5506

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taggttccaa gcgagactcc atctcctcct accaattgca ctgagactgc ttacagtttc 180  
agaatttgtc agaaaaagct tgtcccgatt gcatttttgt tctgtacgt actcttattg 240  
atacggatgg cagcaccatt ggcatgtgtt gttgggagtg gtttatccat acagagtaat 300  
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<210> 5507

<211> 484

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220072g02a1

<400> 5507

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caagcgagac tccagctcca cctttgaagt acagagaaga agaattgaag aatgtacgag 180  
gggatggaac tggagagcgc atggaatggg ataggatcta tgattatgat gcctacaatg 240  
acttgggcaa cccggataac ggtgataaat atgcacgccc cgttcttggg ggttcaacct 300  
taccttacc ttgcagagga agaaccggta gaagaaaaac tagaaaagat cccaaccgtg 360  
agaaaccgag cgattttgtt tacctctcaa gagatgaaac atttggtcac ttgaagtcac 420  
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<210> 5508

<211> 516

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220072g02d1

<400> 5508

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 tgaaatagga tagggtatta cggataagca gataagcccc gaagagtagg atgaggtatg 180  
 aacccgatta ggagccatga aggcccaaaa aatggatagg ggttcggctt aatataacaa 240  
 aaaacaaaga aacaactaac tgaccagtgg cctaggatga aaaggccact taccgccaga 300  
 ggataaagag ggtataaggg tacaaaaggt acgaacccca aactgatatg ataggctacc 360  
 cctagagacc taaggtaaact actaatgccg caccacggc aaccacccat ttcaggggta 420  
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<210> 5509  
 <211> 459  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072g03a1  
 <400> 5509

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 atatcaacaa actctgagga ccttgacaaa tcagacatgc gtaatcatgc gctgctatct 180  
 accaggcttc acatgctgca acagtaccaa aggtggctgg attgaattaa tccatgggaa 240  
 gcctcagcct gtacatatgc ggccaatgca gccttggttg ctgccctata tagtgattat 300  
 ccggacgctg gtgatacacc cgtatgggat cgtggaccgt aactcttttc aaccgacatg 360  
 ctgcgctgct ttgccatggc ccagatggag tacataactg gaaataaccc aaggacaatg 420  
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<210> 5510  
 <211> 654  
 <212> DNA  
 <213> Glycine max  
 <223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220072g03d1  
 <400> 5510

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 gtgtgtgtgc tgtgagtgcg cagagagatc gcatngaccg gtgagagcgg agagagctga 180  
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 caagccacag ttccacaact cacgtgttgg ttacaagggtg ccgcgtacca agttagaccc 480  
 gggtagtaac tacctaaaac gacttggaa caacggctta acccgtgacc accatttttg 540  
 ccaccaaccc aaaatagtag taagattact aaatcctact attggtggcc caatctgact 600  
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<210> 5511  
 <211> 456  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072g04a1  
 <400> 5511

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 ggacagatcc tcgaagcgcc acaagcaccg tcaccacagg caccgacacc gccacgggag 240  
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<210> 5512  
 <211> 620  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072g04d1

<400> 5512

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<210> 5513

<211> 527

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072g05a1

<400> 5513

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agatgagatg caaggagttt cagggcagcg ccagtgtgat gaactttgat caaactgaag 480  
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<210> 5514  
<211> 556  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072g06a1

<400> 5514

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attttttcac accttgctca tggggtagct ggcgagcac atgggtggaca tgggtacca 180  
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<210> 5515  
<211> 572  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072g06d1

<400> 5515

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tcagcatagt gcggcattta acaagccagg gttattagcg ttattaagcc taatggcggt 480  
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caacgtcggg cagctgttcc gccgcatagg gg 572

<210> 5516  
<211> 588  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072g07a1

<400> 5516

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gccggcctat taaaaacagg taataccaat ggctaaactt gccgcggtgg cacaccgggc 180  
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<210> 5517  
<211> 611  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072g07d1

<400> 5517

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 ttaaaacccc caaaaaaccc tttttcccc cggccaaaa ttaccccccc aattttaatt 480  
 accctggggg ccccccttc cgggaaaaaa tttcgtatt aggggggggc ccccaaaata 540  
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<210> 5518  
 <211> 365  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072g08a1  
 <400> 5518

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 cgcagacagc cagacacttg caaaagctga aatagctgga gacatagctg gtccacttga 240  
 gcttgcgat aaacaacagg cacacctaaa tgacgcactt aattagcagc aacaacattc 300  
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<210> 5519  
 <211> 552  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072g08d1  
 <400> 5519

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tagctataga tgtagcagct tccaaaagtc gaagcagtaa cgtacacaga gcgaatagcg 240  
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cggactagga aggcgagagg acgccctgcc agtagtagcg gtaccaattg cagtagcaat 360  
acaaaagcgg cagttgtgat ttataccac agaccattat ctagggtgc tacgattaat 420  
gccaggccta cgaggaatgc agttttaag atagcgtgct tgttgacctt ggtgggcgtg 480  
ggtatcttcg cttagtgact ggttgccggt tgtgcacata gtgtttgagg tagccgtgta 540  
gaatacgcaa ca 552

<210> 5520  
<211> 332  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072g09a1

<400> 5520

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ccaaaaagca attctgggtt gaaaacatca tcgttagccg ctgtcgggac gagcataaca 120  
ctgatacaaa cgtagataac aatttctaga cattcgatca gaaccaatca ggtgataagc 180  
acggcaactg cgaagccaca cgaatgggtg ttcgctatca caaattgcgc cgcccgtag 240  
gatctctgca attcgcggtc tagtaatcac tgctattgat agatttgtaa tagcaacgaa 300  
tgtctgttcc aggtggaggc acataccttt gc 332

<210> 5521  
<211> 305  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072g09d1

<400> 5521

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cttggggggg gggggggggg gcaagggggg gaaggtggga gaatgagtga acgccatata 120  
gcttgaagct tccgtaagaa gactgtaaat atccaatccg accagcaaata gctagaataa 180  
gatgtaagtg agcgatgagc gctttagccg taaaccgcct agaaccgtgt aagcgattgc 240



ataagcatag caccaaaacg gtaagtcgtc atgcttgtag aggtggtggtt attgctccat 300  
ggtgg 305

<210> 5522  
<211> 655  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072g10a1

<400> 5522

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ctccacaacg cttcgcatct taacaactaa cttcaacgtc tgcgcgtcct caccacatgt 120  
cttcttccct gcggatccgg ctagtgattc cacatccata tcccgcagcc ttccaaccgc 180  
ggccaataga actagccaag gccgtattta ccctgttacg ggtggccgta gttgaagcct 240  
agcatttagc cgggtgcagtg caacaacaag gtagtgtaaa cgttttcggt tagagggccg 300  
ataaccaagc catatggtgc gcacttgcaa acggggttact ggtttaataa gcaaagccac 360  
ccgctaataa aagcccagtt gggagcggta aaaatagtag acccactcta ctagagtgat 420  
acttatagca aatagtggca ttaaaaccta acgctgcgag tgcggcgagt gctgtgaaca 480  
ctgcaatgac actacctatc aatatcaagg taccaatggc acatgcaata ttatgttgtc 540  
taaaacaact ggcactaggg gtggtacaac gtacgcacca aaccctttaa gccacaacta 600  
acatagcaca aaattctctg gtagccagca taggaactac aggcaagtca caaac 655

<210> 5523  
<211> 606  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072g10d1

<400> 5523

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gggggggggg gcaaacacca aatccgttta gaagaacgag gaacggagag ggggggcgtt 120  
tccaattata aagtagttgg cttattgttg aaaagataag tgataataaa gttgaactca 180  
tagatataag cagacaaaag taaaagtgcc acgacagaag ctgagtagtg agaggagcgc 240

atcagtgggg ggtagtata gggcggtgtg caagacaagg cagataacga taatagagct 300  
gatagctggt gtagaagggg tgtaacattg gatttacgca acgacccttg cgaagtatac 360  
agcataaact cactaagggg ttaacagagt ttaccggggc accgagggac tataacacaa 420  
gcacaacagg agtgctgggg aaactggaag agcaagcaga agcaacaatg caaagaaaaa 480  
tgacaagcac ctacaaaagc gctagtgagg tagcattttg tagtatgtga actacagggg 540  
gtagaaaact actagagggc gatttgtata agtgaaaagc aatgctgggg tagtaagtag 600  
ggagta 606

<210> 5524  
<211> 548  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072g11a1

<400> 5524

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ggcagaggca gtgctgcaca ggccaaacaa gaactacctc tagcgcgtcc gggctctcca 120  
gggcaactgc cttggctacc ccaggaagag cagggggccac aaaaaaacac gcccccgcc 180  
gaactggcag tggccacctg ccacccaaca caggaagcgc tacaaatata acgggttagg 240  
cccggataaa ataggttacc atcttagggg tttctactag ctgaggcacc ggtggcagca 300  
cggcataaag cccagctga ggcggacgat gccccggccc tactagtaaa gcgccctgct 360  
atacggggat aacgataaca cattcaacta cgccggcatt gtccccccgt ggccacttag 420  
cccggggcca ggcttgctcc tgaggcctct gctgcagctg aattttcttc tggcgcgcca 480  
gcataggcag ccacagccga cgggtagtag caagcggtaa caaggcctaa tgagaacacg 540  
ccacaagt 548

<210> 5525  
<211> 531  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072g11d1

<400> 5525

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 gggggggggg gggggggggg gggggggggg gggggggggg gggggggggg gggggggggg 120  
 gggggggggg gggggggggg ggggggggga cccaaaaaac ccagttttta ttttagggga 180  
 aaacccttta aggccctggc cagggtttta ataaaagtcc ccccgaaagg gttaatttta 240  
 agaaggggtt tccttttagcg gggcaaaatt tttttttaa aaaaattttc ccccttaaga 300  
 taaattttcc cccaccccg gaaaaatttt caaaaacccc ctttcccaa gacccctta 360  
 aaaaaacccc aaaatttaac cccccggtt aaaaagtcc caaattggcc ctttttttat 420  
 cccctaaagt tccaattgg caaacttggg tttgagagag agagccctta aattaactgg 480  
 gtcccatag ggccgttccc caaaaacctt ttccggggat tcccgttttt t 531

<210> 5526  
 <211> 559  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072g12a1  
 <400> 5526

cagtgcgcg cgactggtat cgatctatcg ctaggaatgt gccaggtgcc gtacactggg 60  
 tgattttttt gtgtggggg ctcggtaggt gcgggggtgc ggcaacgtgg gtttgactta 120  
 agccttattc agtcgggcat ttcccgggat acgtgttcgc acacctggca gcaaatttgt 180  
 atgcataata gcaaagcaaa ggggcctttg gtgcgtaacc agtcaactta accctaaccc 240  
 tagttgctaa tattattacc gtaggctgca cgggcaccaa agtttgcacc acaatacata 300  
 caactgtatg cagccgcttg ggccacaacg tggcacagtg atataacaac ttagacgggg 360  
 cttattagcc cggctgtgcc tgcggtcggt accattgccg cgcgccacg attgcaaacg 420  
 caagcgctat ctgtggcagc agcaacacgg ctaattgctg cacgattgct agggaaccaa 480  
 caatggcggc atgcaacggt gaaacctaata gggcgctggc acggccatgg ggaattaggt 540  
 aagctacgtg gtttttctt 559

<210> 5527  
 <211> 721  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220072g12d1

<400> 5527

cctactatat tctctgtagt ctaggggtcc agtccatgga gtcagcgggt cctcataagg 60  
agcagctagt gtagctgtct gacaaagtga tatctccatc tcgttagcat tgctccccgt 120  
ttcaacaacn caaaccccc accccaacca caccaaaaca acacacacac aatcacacac 180  
accacacccc caccattacc caatacacac caccacacc acccggaac aagccccaac 240  
aaacccaaac tccccacat gcctcaacaa aaaaaaagc aacttttttt ttccttctct 300  
ttctctctc ttatcgaaag cttaatcaca aaactaaaat cacggacatt atttataaaa 360  
ctcaagtgcg acaaactcca aatgagaaag aaaaagccgg ttcctccatt tctttatcca 420  
actctttatc ctcaagttac tcagcagcaa ggggcacaga ctcaagcaat ttgcggtact 480  
tgagagcata gaacatctcg agatagcggc ggctctcacg gcggtcaagg ttagacacat 540  
gcttcagaa gccatagaca ccggtgagag tgagaagcct ctgagagtaa atttgccatg 600  
tgtacttctc ttcaatacgc tggagaccag ctttgagat cttgtcccag tgagttgggt 660  
caagcttgca cttctcaaag aagtcaacaa ggagatcagc agcacggtca ccatggtaag 720  
g 721

<210> 5528  
<211> 509  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072h01a1

<400> 5528

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tttattcttt gacaataatt tgattgctgg aattgtcaat ggtggaccct ttgagccaaa 120  
gtgttcatat ttgaagctaa atctttccac caattggact gagactgctt acagtttcag 180  
aatttgctag ataaagcttg tcccgattgc atttttgctc ctgtacgtac tcttattgat 240  
acggatggca gcaccattgg catgtgttgc tgggagtggt ttatccatac agagtaataa 300  
aattgtcaag gacttctatg gaagatatct cttctcatat cataggcttt cagcactgag 360

taaggagtca aagactatat gcataaaggc ttccttggat cataggacgc atgaaggcag 420  
aagaggatct ctgaaatcgt tgaatgtagg agttggctta cctgtattat taggaggtgg 480  
gacagcttat gctgatgaac taagacctt 509

<210> 5529  
<211> 414  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072h01d1

<400> 5529

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gggggggggg gggggggggc ggggggaggg ggaggggggg gggggggggg ggggagacgt 120  
aaaagaaaga agatagcgga ttaagggtaa gcagataagc acacaaaatt aggatggtgt 180  
atggaccgga taaggagcgt tgaccgcaca aaaaatggct aggggttcga cataatatac 240  
caaaaaacaa tgaacaact aactgacccg tggcgctggg tgaaaaggcc ccttaccocg 300  
cggggcttaa ggggtctaa ggggaaaaaa ggtaccagt ccaaacgat ttgataggct 360  
aagcctagag acctaaggta aataccaaag ccgcaccac ggcaaacc catt 414

<210> 5530  
<211> 510  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072h02a1

<400> 5530

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agctggaagg caccaagagg ttggccacaa gagccttctc cagagtgatg ctctttacca 120  
gtatattctg gagaccagt tctacccaag agaacctgaa tccatgaaag aactgagaga 180  
gttgacagca aaacacccat ggaacatcat gacaacctct gcagacgaag ggcaattctt 240  
gaacatgctc cttaagctca tcaatgcaa gaacaccatg gaaattggtg tctacactgg 300  
atattcactt cttgccaccg ctctcgctct tctgaagat ggaaagatct tggccatgga 360  
tattaacagg gagaattatg aattgggttt gccagtaatt aagacagctg gtgttgacca 420

caaaattgaa ttacagagaag gtcctgctct tccagttctt gatgaaatgg ctaaagatga 480  
 gatgaccatg ggagctatga cttcatcttt 510

<210> 5531  
 <211> 524  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072h02d1

<400> 5531

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 gggggggggg gggggggggg gggggggggg gggggggggg gccccggccc ccggaggggc 120  
 gcgagtaagc gtgtaagctg aggatggagg aaagagatag agtaacgata ggaataaaaa 180  
 acctcgaaat cccttaaaaa aaaaaaaaaa aacccccccc aaaaaaacia accccttccc 240  
 ccacctcaac caaaaaccac caaaaacaaa ctctatttaa aaccaccccc ccaaaaaaaaa 300  
 aacaaccccc caaaaatacc ccccccaaaa aaaccacccc cccccctttt acacccccct 360  
 ataaaaaac cccccccaa aaaaaaaccc ccccccccc ccttaatatc cccccaaaaa 420  
 taaaaaata acaattctca ctcttttccc ccaaagcccc cccttaattt ttaccccccc 480  
 caccaaaaac cccaccccc ccccaaaaaa accccttttg cccc 524

<210> 5532  
 <211> 481  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072h03a1

<400> 5532

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 gcgcggcaag gatcattgcg gtctacaact gtcggttcaa cagctcgctt atcgccaag 120  
 gattatgact ttagagacag cggcactaac catagatagc atatcttgac atattcttgt 180  
 ttcaacagtc aatggtgtgt gccagctcta ttgtgcctat agtcatggaa tcgcttactg 240  
 gtcctctca accagaaata tgatgttgct tacatgcact tacatggtaa tggcatggcg 300  
 cacacaacca aaccatcatt tggcagtga gctggacagt cgaatcaaaa tgcctaccta 360

tttttttggc tatttgaagc tgcatagcgt taacttatag gctgctttct gaatcataga 420  
 ctgtagccgt tactgggtat agcttgaatt ctttgcagga ttatatagca tagcttcata 480  
 t 481

<210> 5533  
 <211> 444  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072h03d1

<400> 5533

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 gggggggggg gggggggggg gggggggggg ggggcaacca atgcagggtg agaagagcaa 120  
 ctgaactgag agaacttgat aaacaaggaa actgagattt acgaatcctg atgagtgagc 180  
 atataaaaac ctacatgaga aaggaatctg agatacttgt aaagacttta aaaaaagacc 240  
 gagataggca gaggtcatgc gttaatggca tgcttaaagc aaccggggcca gctcgctatt 300  
 agcttaggat tagcgaacgc cagcgaacta atagtagagg gtgccagcat accacttacg 360  
 agctaagggtt agaatgagac ctataagaaa ctgccaatat attaggcatg cgtcaaataa 420  
 caacagcgta tcagagatga gtga 444

<210> 5534  
 <211> 571  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220072h04a1

<400> 5534

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 ccatgtctaa tgtatcatca tcatcacttc cggttttcgc cctggatgcc aaacccaact 120  
 cgaacatcac tcgacacact gcaacttttc atcctaccat atgggggggat tatttccttt 180  
 cctatgatcc tagttctgcg gtgtattttt caaattcaag gaccaaactg gaaagttcaa 240  
 tgaaaggcta gcaaatgata tacaaggaac gttgagcttg tatgaagcag cccaactaag 300  
 atttcatgga gaagagatac ttgaagaagc acatgatctc actctcacc aggtaactaa 360

gtcaccaacc acccaattaa gccatttcct tgctgcacaa gtgaaacata gcttatggca 420  
atcacttcgc aaggggaatgc ctagattgga gacaagatat gatatgtctt tctaccaaga 480  
tgatccctca cataatgaaa gctcgttaac ccttgcaaaa ctagattnta atatgttgca 540  
aaagctacat caaatagaag tcagtagtat g 571

<210> 5535  
<211> 590  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072h04d1

<400> 5535

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ggggggggga atgaaacaca aaggagtaga gaagagtata gaaaggtaac aaagacagta 120  
ataagagaag aaagaaaaga aatggtgaat ggcgagaagg aagtaaagag tggaggaatg 180  
acaaaaaggg gcagcgaagt gggtaggagg tttttgctag ggcgagaatg agtggtagtg 240  
ggcgaaacta tagttagtag ctctctaacc ggcataatat ctagaacaaa gggtaggccg 300  
atggcacgac caggaacata actgctagga agcgttggtt aactatgtgt aattaatggg 360  
acgacggtgg taagccgagt ggcttggcac cgaggagcgg ctggtagaga ctaagtaacc 420  
tggcaaatta tagcgttgtg ggtggccgta gatgtatggg taataagcgt agttagcact 480  
tgacaaagaa ggcaacttct gctaataagg gggcccgtat ggcgtcttta gagcacaatt 540  
gttgcgcggc gcgtggttag gttaaccaa cagataaggc gtactagact 590

<210> 5536  
<211> 497  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072h05a1

<400> 5536

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aacaaccctc ttgcagtcgt agactatatt gaagatcttt atgccacta cagaaaattg 120  
gagggacta gctgtgtctc gtcggattat atggcacaac aatctgacat taatgaaagg 180



atgagggcta tactgattga ctggcttatt gaggtgcacg acaaatttga cctcttgac 240  
gagacattgt ttctcacagt caatcttata gatcgatttt tggcaaagca gacagtggca 300  
agaaagaagc ttcagttggt tgggtctagtt gccatgcctt tggcatgcaa gtatgaagaa 360  
gtttctgtac ctgtggtggg ggatctaatt ctcatatcag acaaagcata cacaaggaag 420  
gaagttctgg aaatggagaa gttgatggtg aacacattgc agttcaacat gtctgtgcca 480  
tcagcatacg tttttat 497

<210> 5537  
<211> 552  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072h05d1

<400> 5537

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ggtatagagc gaaaaggcga ggatgtgtga gaagggcaca ggaggataga ggggtgactag 120  
aaagtggcac acaatagggg gggggcgggg agtagagaaa agagagagcg gtgcaaacia 180  
tatagataac gatataaaaa aaacccccaa aggtagaaaa aaagatacaa aaaaaaaaaat 240  
acaaggcacg aacaccaac caaatagaca caaaaggga ctaagtacag aagaacaact 300  
tacgacgacg ctaaaacgtt tggcttaaca cgcggccaat tttggggacg gaactaccga 360  
ttggtgtttt tggcacgcct ggtattatgg tttagcgcaa cgtaccgta gtgtgcttaa 420  
acgcgttaga gctactacgt ggtaacaatt gcttaggggt attttgtggc acagtaaccg 480  
gcagccacag tagcttagct tgcaacgtaa aatgtgttgg tataagctgc accagggttg 540  
gcgtaccag tg 552

<210> 5538  
<211> 497  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220072h06a1

<400> 5538

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tgccatctta tggtagaggg agggacacac aaggtggaag gtttagcagc ctaatttttg 120  
 gaaccaacct cactgatgta atcataactg gggacaatgg cacaatagat ggacaaggtg 180  
 atctgtggtg gcaaaaattc cgcaaggggg agctcaagta taccggcct tacctgatgg 240  
 aaatcatgta ctgagataat gttcaaataat ccaatctcac tttgggtaat tctccatcgt 300  
 ggaatgtaca tcctatatac agcagcaacc ttgttgctca aggaatcaca attcttgctc 360  
 ctgtgacatc cccaaatata gatggaatca accctgactc ttgcacaaac acggaattg 420  
 aggactgtta cattgtctct ggtgatgact gtgtggctgt gatgagcggg tgggatgagt 480  
 atggcatagc ttatgga 497

<210> 5539  
 <211> 541  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072h06d1  
 <400> 5539

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 ggaaggtaaa taactagacc aaccggcagc cgagccaccg ggtggtact gcagcaagtt 180  
 gctttagaaa taacagtgtc agattggaaa gagtaaaata aaactctaag gagaatattt 240  
 gggatatgta ctgctcatgg gagagtgccg gcaaggctcg gggccataac agtacaatgg 300  
 cggcagaaaa gtcgagagcg aagtagtcag ggtagctg ctggtggcag gaggcaacgc 360  
 acttatgttg ggtgctataa gtagggcggg gaaagggcct atagtggctg gcaatttgct 420  
 cgtcgccaga gatgttggtg acggtactca cggcgagatt agcgtaaatg tattgcggag 480  
 cgaggagatc cctattggca gggctttgtt gcgttagccg cttcgtaatg attaagggaa 540  
 c 541

<210> 5540  
 <211> 118  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220072h07d1

<400> 5540

tgtgacgagt gacgcgggta gccgtgctac atgtttggac gtccaccttc gttggggggg 60  
ggggggggggg tacatcgagg tatcgggtcg taatggtatg cgaagaaaag agccgaga 118

<210> 5541

<211> 564

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220072h08a1

<400> 5541

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gataacgagc gggtcactg agcctctaac aactacgtgc agcggagcac aggtggctac 120  
tcccgcaccg ctgccacga ttcttactaa ttggtgaggc gttcgggcat aaacgtgatg 180  
tctttacata acctgtcttc tggccccgggt aacctgaact acccgagcg cagggattcg 240  
cggtcgcgat caaccccgcc ttccaacaca ttacggttaa aaccgaggcg ggagccgaac 300  
tttattaatt aaccgcgat gtaatgcaa gggactcta ctaacaccgt gcggcttcac 360  
cactcactgc caaccaacgg cccgccttgt acccggtgta aggtagatgc ccgcaagcac 420  
catgtcatgg ataaagagg gcaccgtagg tgccgccagc ggctttatac tctgcggaca 480  
aagcagttaa caagtaatgc ctgtgctaatt tacggttaga aatataacca atgctcgct 540  
tgtatggtgc tgcccaaac gaat 564

<210> 5542

<211> 482

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220072h08d1

<400> 5542

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gggggggggg gggggggggg gggggggggg gggggggggg ggggggggacg aaaaaaatgt 120  
ataggaggaa gtgtactgcg gtggacgatg aacataacag ggccccccaa aaacttcag 180

gtacctcggg aaaatgcac aggggttgaa acgtgatagg gaagctttgt taaagatggc 240  
 caaaagcaac taattgatta gaatgctaataaaaagtaataccgcttattaacccaaaaaac 300  
 ccggccgggtg gggttatcgg ctttgcctcc agccattagg gggcccccaa aaagcgttgg 360  
 gcctttcgga attttgcgga tgggggtttac ttaaacgcac cttatctacg gtttgcgcgg 420  
 gagccattcc cggctaaaat ttcggcaggt ggccagtagg ggggaatactc tgccccctaa 480  
 ta 482

<210> 5543  
 <211> 595  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220072h09a1

<400> 5543

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 acagtaggta aagaagctaa gccgccctta ctgacgggtt ccgcgaaggc acctgctagg 120  
 gcagctacca gagggctgga cgccgacacg gccgcaggtg aagatgatgg gcagccccctg 180  
 aagtggtaac ttgccatcag atcgggttgag ggtattgcag aagcagcggc tgttcacgcg 240  
 gttaagcagt taaacaaagc aacgggctgg ttttgaaca ctgctgtacc ggtaaagtgt 300  
 gtgttttaaac caaaccaagc aatacttgcg caagcggtag acacggcaaa tgtggctaag 360  
 caagcctgta ttagtgcgat tgtaacgatt gccaccactg cgtacgggtga cgaatggacg 420  
 gcttgtgatt acaaatactc gcttgggtgcg catcccttac attatgtagt aatgattgac 480  
 accgaagcgc cgcttgccgt gcgtttaatt gaagaagggg ataaagccnc gcttacgggt 540  
 gaagtaatta gtagtactta gcatttagcg ggtgtgagcc acgccacgcc ggctg 595

<210> 5544  
 <211> 596  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072h09d1

<400> 5544

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gggggggggg gggggggggg gaatgcttta aggaaagcca ggcaaacagg aaaggaaacg 120  
 gggccataag aggtcaggct gaccaagcga aggaatagtt catggcaacc gagccgtgtg 180  
 aagcgaaaaa taagaaagat aatgagaata actgattggg gtgttataac tggctaacgg 240  
 gaaaaggagg gaacagttgg cacatgacaa tgaaaaatgt gaaagagggt attagcgtac 300  
 agagggattg atgggagcat acagaaagtg ctacctataa gaaagactta taaagcagac 360  
 aaagggagaa ggtaccgagg taagctgtac aaacctgggc tgcaggcaat acggttatta 420  
 gtggtaacgt tacgggtgaa aggttggaga gtagttaatg gcgggttaca gttgactgta 480  
 ctgctgagcc accagcttgc aggtgttcgg ggcggagctg ctaaaattgc taaaactgta 540  
 ggtatgtgct tacgggtacg atacgtgcta ccggggccac tacatcgtca ctgggt 596

<210> 5545  
 <211> 568  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmfl02220072h10a1  
  
 <400> 5545

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 tatcgcgctg gaaattaatt tctcgctgtt ggggttaggg tgtagggttg gtaacgatgg 120  
 tacggtgtac tatattatag tattgggcta ctacttgta gaagaggta aggtagtatt 180  
 tgtggggtaa gaggtttgga ggagtctggg caggctcgga gggggggaag gtgggattgt 240  
 aaggggaaga acaagtacgg gggcgacggg gcagggcggc gacgaacagg aaggaatgag 300  
 gtacaggtaac ggaggcttac tgggcagggt gggggggggg gggaaggacc gggctaacga 360  
 aaatttaaat ttaaattttg acattggccc aagacgggca cacggcgcg caaaaacaag 420  
 tccagtggcg tgtcggggag ggtacagaac aaacgtggac aggtacaggt acggcggcat 480  
 ctgggcaggt cgggggtgtg aaggacaggg ctcacgagac cgcaactttg aacgtggagc 540  
 cagaccgacg cactgggagg cggaaca 568

<210> 5546  
 <211> 537  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220072h10d1

<400> 5546

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gggggggggg gataaaggat cttggtaaaa gaaggacaaa ggtaagaacg atattacctg 120  
ttaaaagcag ggcccagcga ttagacaaaa gcataacatg aaaatgaaga tatgattaca 180  
agaccagggg tgaggtatag aaaaacatga actgggcggc ggaccacggg gggggggaag 240  
ggttgctaac gatgcgtaac caattaaatt gagcgatatg gtagctaaaa gagaaaatgc 300  
agcagattaa atattacaag ctgagtaaaa tgtaagctta tgaggaggagtg caatccacaa 360  
ccaaccctct ttaatccgcc acacaccaat agtaatgtgg acaatgacat ttcacggttt 420  
tatagggtta ggttatgggc agtgggtaag acagatgcaa ctaaacctac aaccagagcg 480  
tagcaaacta tagctataaa ggacaggaac ggggtgtggga atgcaagcaa gcacggt 537

<210> 5547

<211> 563

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220072h11a1

<400> 5547

cgagttaggt gtgantagtg ttgatctgta gctagnaatg taccaggtgc cgtctacctt 60  
tgtgcgcgcg ggagaccct tagtaggcca tgggagcttt taagactgga gagtggccac 120  
ccaagagggc acccgcataa ccaaccagtg aaactactgc tatttttagcg ggggtgtggc 180  
gtgactttac gtggttagcca acccgccta ggtgtgccta gcggtgtaat gttaagcaca 240  
ctggggcgct tgcgtgggga taatgtaacc accaggggta ttaggcgcca ggctggacc 300  
acgcacagta ataaccggaa gcaacactat acgccctgac agaccaccag tgggcggccc 360  
acacgatggc tgcgactgaa tagccttggg gccgctggta agggcgggcc agggggcagc 420  
ttgcgggagt ggttaaaacg ggggaacggc gaggatctgc cgtataaaca tgcagtaacc 480  
ataaccacgt agcgacgggg tggggcagcg agaaccgtgg caattagaag ggatgcggcc 540  
ggacgcgagc agaggggtag acg 563

<210> 5548  
<211> 602  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220072h11d1

<400> 5548

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gggggggggg atagggatga gcaaaagagt agatatgaat taatacgaaa ggagccggta 120  
acattggaga tagtaaaaca aaatgatagc atgttggcgt tggcagtacg tgggcgcat 180  
actcgaagat aattgaaaaa tggggccaac agaaatacct aataaaaagt taaataaagg 240  
caactattac aaccttagcg gactgatact aacgatgtgt ttaataaaca gttgttgagt 300  
acatttatgc gctgtggtag gaattggcgg cagtgtatgt tgaacttaag ttataagccg 360  
caaaagttgt tggcacggcg aaaacatacc tataaaactg tgtaggccac ggcacaatag 420  
cttacacaag cttattttgg ttagcaacat ggcctgacat aacacaaaaa tagccccgct 480  
actgctgggc agtttggttg gcgtatttgt aaagaggttt gttaacagag aactgaggcc 540  
cctagaaacg ttaagcagcc ttttgagaaa tatagacacc cttgtcactt caaggttcac 600  
tg 602

<210> 5549  
<211> 572  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220072h12a1

<400> 5549

cagatagtgg gtgagancta gcnattgatc gtataggtaa gtaactgtgc gcaggtgcct 60  
gtacaccttt gtgtgcgcgg gagacccctt agtaggcat gggagctttt aagactggag 120  
agtggccacc caagagggca cccgcataac caaccagta aactactgct attttagcgg 180  
gggtgtggcg tgacttaacg tggtagccaa cccgcctag gtgtgcctag cggtgtaatg 240  
ttaagcacac tggggcgctt gcgtggggat aatgtaacca ccaggggtat taggcgccag 300  
gcctggacca cgcacagtaa taaccggaag caacactata cggcctgca gaccaccagt 360

gggcagccca cacgatggct gcgactgaat agccttggtg ccgctggtaa gggcgggcca 420  
 gggggcggct tgcgggagtg gttaaaacgg gggaccggcg aggatctgcc gtataaacat 480  
 gcagtaacca taaccacgta gcgacggggt ggggcagcga gaaccgtggc aattagaagg 540  
 gatgcggccg gacgcgagca gaggggtaga cg 572

<210> 5550  
 <211> 589  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220072h12d1

<400> 5550

gcactacatg tgcgatcgat cagnanatca ttgnnnnnnt nnnnnnnann nnnnnnnnn 60  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnntt nnnnnnnnnn nnnnnnnnn 120  
 nnttggtggn ggggacctta tanntnnnnn gaaaantana tgacttcttg tccttgatca 180  
 gtctttgtga ccagcgtaat acaacctaaa aacttttgga agataaacag gcaacaaaaa 240  
 tccaaacaaa ttgaagcacc agaaggccat gttagctaca gcaagtactc tcccaacaaa 300  
 gatcctccta tcagaccac tgtgctcttc attaaccttg ttgatctcac tcctaagcca 360  
 atccacaatg gtgaaaatcc tccttgagtt gtaaaagaca ggcacaaaag ctctcattgg 420  
 agttgagaac atgccagaga atgccacccc ttccatgaag acttggttag acaagagaaa 480  
 aacatggggt gcagctgctt tgatcccttc cttgtcacc tcaaattatc cctccaagat 540  
 ataagctatt ggggcataaa gtccaatgat ggccoctata aacacatag 589

<210> 5551  
 <211> 380  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073a01a1

<400> 5551

caaaatgcc accatgaatc catatagttt caaattcata gaagccttac taatattaat 60  
 ggtgggtttg atgatgatga tgatgctgca cggtgtttgc gctgaagagg acatagtgcg 120



cattgcgagg gaaaggggaag cactccttca attcaaagct gcccttgtgg atgactatgg 180  
catgctatca tctaggacca ctgctgattg ctgccacagg gaagggatgc tcttgaccaa 240  
cctcaccgga catgtttetaa tgctcgacct tcacggtcag ctcaattatt attcatatgg 300  
aattgcctca cgacgttata ccagaggaga gatccacatg tcgatgatgg agttgcaaca 360  
attaaacctt tttaaaccctc 380

<210> 5552  
<211> 513  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073a01d1

<400> 5552

aatacatgat aagttatatt tcatttcaat agcacaacac taattaaact agtctttttc 60  
aaattatcaa aacatgggtat aagtatctca attgacagtg aaaaaatcta aagcaatcat 120  
aacttccaac taattgcctt ttccaagcat taacaagctt agacattgga gttttccgat 180  
ccaagagggc tagtgtcttc aaggtagtag ttaagcttca gccatgcacc tttgatattt 240  
tattagcaaa tattgctacc ttgacataaa tattgtctga tagattgttc aagaacttga 300  
aataggcatg tctccaagaa agcttgaata agattgagcc aaacaccacc caaaagctta 360  
taacaaatcc aaatgccata ctcatgtaaa attcacgact gaaaagtga aattcgctct 420  
cttgaacttc aacatttgggt ttttgtgtag gtctcccatc aatacaaaat ttctcaagtg 480  
gctgtccaca aagatcaaga ttatcttcat aac 513

<210> 5553  
<211> 317  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073a02a1

<400> 5553

ctctaggcaa accagtggcc cttacacatt ttgaagcgga taggggatac ccatgggcat 60  
tgttgctacc atgaggatga cgaagaccca tggaggaagg gcctggatga ttatcgcacg 120  
cgttgagact gccacggagt cactgccacc actgatgggt accataggcg atgcctctag 180

attacgagtg gtgacggcca ctgctgactg ctaactaaag gagaacgtga tccccggccc 240  
ctagaccaga cctgtgacta tggatcgca tcaacgacag actactggga aggcaaaagt 300  
aacatgctac tgaaact 317

<210> 5554  
<211> 306  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073a02d1

<400> 5554

acatgatact ttttttgtaa tttaaattgg acatccttcg gtaaacttga tttttcaaga 60  
atctctcaag ccggtacaag aacctcaaat ttcagtgtaa aactgttttg cctgcagctg 120  
atccatctgg aggatatttc caggcaccca ctagggtga cactggctta tacaggacat 180  
cgaaggctta ctgtccacat ggtcgagtaa aagttcatcc tttcaaatca gcttcttcta 240  
cttcgagttt cgtcacactg ggggtggcct tgggtaaaag ctttcttttt aactccctat 300  
gagccc 306

<210> 5555  
<211> 497  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073a03a1

<400> 5555

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gatcagaaga agagctgctt caagcagaaa gagtagcaag actgctaagg ctgcagcatc 120  
tgccaggggt gttgagaaag gtgcctcagc tgggtggtgaa gttgaatcag gaggtgaagc 180  
tgggtgggaaa ctagttcact ttgatggccc ttttgctct actgctgatg atcttttgtg 240  
tgcaactgcg gagataatgg gaaaaagcgc atttgggaca gcatacaaag caacactaga 300  
agatggtaac caagttgctg tgaagagggt gagggaaaag accactaaag ggcagaagga 360  
gtttgaaact gaagttgctg cacttggcaa aatcagacac ccaaattctt tggcacttag 420  
agcctactat ctaagaccaa aaggagagaa gccttttgtg tctgattaca tgaccaaaagg 480

aagcccagca tcattcc

497

<210> 5556  
<211> 563  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073a03d1

<400> 5556

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aaacatacat tatttctcca agttaaaaag aatacatagt gtaaaacaaa atccttgctc 120  
gtatatatac ataaactcaa tgaacaaata aataaagaat taaaacacat atcctttctc 180  
tagtaattaa agtaaatgaa taaaaataat ctcttcctt aacacacaca cacacacact 240  
cagaatcaat tctctttact cagtttcttg ggccttagct ccatcatcat cccctgaagc 300  
taagtctggt ttaatctcct ccaattgctg tagaacttga tgaacttcag gcctagcagc 360  
aggagaagga tccacacaat gcaatgctaa cttcaatgtg ttaagcaatt catctcctat 420  
ggctggtgca tccctcatga gtcctcaaac aaacacttca ttagtccact ctctcctcac 480  
tatggatgcc acccattgtg gcaagtccat gccattgggt ggctcccccg gcggtttccc 540  
agtcaggagc tccagcatga tga 563

<210> 5557  
<211> 520  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073a04a1

<400> 5557

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tttgagatgt ggggagatgg attgcaaaca agatccttca ccttcattga tgagtgtggt 120  
gaaggtgtac tgagattgac taaatcagac ttccgggagc cgggtgaatat tggaagtgat 180  
gaaatggtca gcatgaatga gatggctgag attgctctta gctttgagga taagaatata 240  
ccaatatacc atattcctgg ccctgaaggt gttcgggggc gtaattcaga caatacatta 300  
atcaaagaga aacttggtg ggctccaact atgaagtga aggatgggct gagaattaca 360

tacttttggga tcaaagagca gcttgagaaa gagaaggcag aaggtgttga tttatcaggc 420  
 tatggatcat ccaaagtggg tcagactcaa gcccagttc aacttgggtc ccttcgggct 480  
 gcagatggca aagaatgaag cctctagttc ggcagttgct 520

<210> 5558  
 <211> 533  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073a04d1

<400> 5558

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 aactagttt tttcacatc agccttctga ccaagtgcct ttttactga ccgcctggta 180  
 ggtttggctt ctgaatcact agctgtcacc ttgaaacat cctctgcagt cccttctttt 240  
 acagggccat ctttcttttt tgttcgtcca agtttcttag aatgattttc atcacagagg 300  
 ctctcacttg gtggagaagc aacaacttcg gaatcatcat tgcagccat tggcgacgaa 360  
 atcttagcat caatcccttt gtcattctct gaaggtcctg cagcttcaac agaatgggtcc 420  
 tcgggagggg aactgtgaac tatcttgctg ttgctttcac agtcgagcat tttctcagtt 480  
 tccttctcat tagcagcaac ttgacccttt ggagggtttg tcaatttaat tga 533

<210> 5559  
 <211> 471  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073a05a1

<400> 5559

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 agtatgacga ctcaaatcag aacctgaaga atatgatcag tacagtcatt ggtcagtatg 180  
 gactcttacc tgtttcagga gttatctcca agcttaagtc tgagggacat ggtcatgttt 240  
 ttacttctgt attctatgca caatctggca ttcaccccat gttgagtcca aaaccagtct 300

gccagaatga gaggcctccc tttcccacaa gtacctactc ccagtccaat cctgacagtc 360  
 actgctcaga tcaacctcat gactgttcca atgatgctac ttgtcttgat caaaatgtaa 420  
 aggataatac tgattcagat cacgcaaggc atgagtctgc tgctgctgat c 471

<210> 5560  
 <211> 558  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220073a05d1  
 <400> 5560

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 tttaaacctc aaagtagtgc caccatacat ttggcactt tagtccgcag gatgttgcaa 180  
 tcgatagtag cttaaaatctt aaaataatat aatcacaata ttgggagaaa tatatatgaa 240  
 caaaaagcca tgccaaaaag cttcacaagc ttggtaatgc cgacataaag aatgagtgaa 300  
 aatgtgatgg gaagagtata aaatctgaga attttacttt tggaaccac caaattgata 360  
 ttgttggttg ctaaggcttg agaaaaagtc gtctccagct gctggctgtg aaggagtgaa 420  
 tccagaccta ccattccaa gaccagatcc tgaaccata gctctcccca tgtaaaatga 480  
 aggtggaggg cttttctccc tttcatcgga tccatcactc aatccacca caatttcaac 540  
 gtccgcaggg gatacttt 558

<210> 5561  
 <211> 525  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220073a06a1  
 <400> 5561

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 tctggatgac ttctattgca accaactccc tctctctctt caccagcgaa accctaacc 180  
 cttcatcacc actcccgagc tctccaccct catgcaatgg aagctcacgc ggggcaaatg 240

gaggccgcgt ctgttggatt tcgtgtcgtc cctagacgac gccgttgtga aatccgcttc 300  
tcagaaggcg tttcagagcc ttcccgatgt atccaaagcc gtttccgagc tcaactgtgtc 360  
gaaaggcggtt ggtcccgcca cgcctctgct cgttttggct accttcgccc ctcaactaac 420  
ccctttcatg tctgatgagg ctatggaggc agctcttggg gctcaaagat tattcactga 480  
agcaatattt aaaattgtgg ataaagtgca aaggaagcgg aggaa 525

<210> 5562  
<211> 302  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073a06d1

<400> 5562

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ttctcggggt tttcttatat tgtttaacat aactatatta ttaaaaaaac aaaaaacaaa 120  
gacaaaaaag aggccacgag aaccggcaca acagggaaca ccagaacgca caaacgacga 180  
caggaagata aagaagacgc agaaaaaaaa aaaaaagaag agggaaacaa aaaaaaaagc 240  
caacaaaaaa agaaccggga cagaccaaaa cggacaggga aagagcccca gcggccggga 300  
aa 302

<210> 5563  
<211> 546  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073a07a1

<400> 5563

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accaaacgta gctaggcacc actgctagga atggcaagtg agatattttc tgcccttctg 120  
atcacaaact ttgtggttgc agcctctgct ggtaacttca accaagactt tgagataaca 180  
tggggtgatg gtcgtgccaa aatcctcaat agtggggaac ttctcacctt gtccctagac 240  
aagacctctg gctctggatt tcgttctagg aatgagtact tgtttggaaa aattgacatg 300  
caactaaaac tcgtgcctgg taactctgca ggcacagtca cagcttatta tctatcttct 360

cttggggata ctcatgatga aattgatttt gaatttctgg gtaacttgag tggatgcct 420  
tatattcttc atacaaacgt attcacacaa gggaaaggta acaggaaca gcagttctat 480  
ctgtggttcg accccaccca ggactttcac acatattcca ttctctggaa tctcagagc 540  
atcata 546

<210> 5564  
<211> 475  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073a07d1

<400> 5564

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aaccgaggag ccctattgtg gtcttattaa ttacacaag acaagaaaa aaaaatgaat 180  
tcatgaggta tgagaggttt ataatatgaa atagttttgg ttcatgcga ttgtgcactc 240  
aggaggaagg ccctgtggga aacgcttagt gtcagtgcag tagttgtaaa tcatgtagtt 300  
cttttgacc cactgaatcc tagcttgccc tgttgaatcc agtgattggt tcaaccatgc 360  
ttggtttgat gatggattgt tggaggagca agatgagcct gaagaagaag tccaaacaca 420  
tgcttgggca ttgaactttc tgtaagaggc tgtgaatggg gcttggctcc aatca 475

<210> 5565  
<211> 552  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073a08a1

<400> 5565

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ggaggttcat gtttctgtcg gtgctccttt gtgccacctt tcatgtctcc ttctccatta 120  
ctgacggctt agtagcaaac ggcaacttcg agctgggtcc gaagccctcc gccctgaaag 180  
gaactgtggt gattggtggc agccactcga tcccagaatg ggagatctct ggcttcgtgg 240  
agtacataaa gtccggccag aagcagggcg acatgctgct cgtgggtccc gagggggcct 300

acgcggtgcg cctcgggaac gaggcctcca tcaagcagag gatcaagggtg atcaagggca 360  
 tgtactactc catcaccttc atgggtggccc gcacctgccc gcaggaagag aggctcaaca 420  
 tatccgtcac tccagactgt ggcgtcattc ctattcagac tctgtatacc agcagtggat 480  
 gggacccgat tgcattcggg tcaggcggag aatgagacag tagagatgct gattcataac 540  
 cctggcaaag ag 552

<210> 5566  
 <211> 573  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073a08d1

<400> 5566

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 acacgccacc gtatatatac tatacgtcta tagatgatac ttgttataca cacttatttt 120  
 tttcatattt aaatgaaatc aaactcgtta cctctcaagc ctctaaagaa aaaaaataga 180  
 aaataagaag cattcttaat tattctccta actatatata aaatcaaagg ctgagaacc 240  
 atatatataa tacttttgatt cattagcctc acaccctagc aagcccaaatt tccctcatca 300  
 tggtttacgc aggctcacca acttgacatc atcaatcaca ggcccacaga gtgaagaaaa 360  
 gtcacactt ctcatgggtg agaatgtgct aaggaacatg attcttggtc taggggtaac 420  
 agccacaaac ttgagtgtg cacgtttgaa cctcctttg cctttggact catagggcac 480  
 cttgatgggtg tcttttcctg caaaggcttt cacaatcatg gacccttcac atgagttgct 540  
 tgcattccca cagagaatga gagcacatag gtt 573

<210> 5567  
 <211> 566  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073a09a1

<400> 5567

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 gtgaaacagg agagagagag tccgtgttag atcagaaaaga agagacagag acggcgccac 120



caatggcggg agcagataaa gaattggaag agcaacttct tgaagccggg aacaagcttg 180  
tagatcctcc ttcgtcgggtg gaggacctcc tcgcactcct agaacaagtt gagagttgcc 240  
tatcaagggt tgaacagtcc ccgaccgact ctatgcaaaa tgcactctct ccatcattga 300  
aagcattgat tgcagacaaa cttttaaggc actcagatga tgatgtcaaa attgcagttg 360  
catcttgcac cagtgaata acaagaatca ctgcacctga agctccttat gatgatgatc 420  
aatgaagga ggtatttcaa ttaatagtgt catcatttga aaatctacat gataagttaa 480  
gccgatcata ttcaaagatg atctcaattc tcgacactgg tgctaaagtc agatcatgtg 540  
tggtaatgct ggaccttgat gtgatg 566

<210> 5568  
<211> 560  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073a09d1

<400> 5568

gtgcaaaatt gttaagttaa ttacgaataa caaaatttac aatgaagggg ttcaaaatac 60  
tctcaaactc tctaaacca aaatacagag ctccttgtaa aggagacaac tactatctat 120  
ctaaccgaaa atgggttaca acggaaaaaa atagaaaata gttacagtta caacacaact 180  
tatgttagtg aatcaccatg ttggacgggc cctcgtacgt gactggatgc tccaccaggt 240  
gacataggat tggatgacct atataaaaga taaaagtact ggaccagacg atcattgatg 300  
tccattctat gtctatcatg tattgtccaa caatcatcaa tctccacctt gattcaataa 360  
tatttctgaa ttacaactaa ctcagttcat ttccagcaat ctacagtaag tagatccaga 420  
taatgcatga acttgtttct tagaaccggc ttcgtgaaca tatctgttg attctgcctc 480  
gtatcaactt tctggacctt gacccttttc tcaaaatgga tgaagtggct tctaattgtca 540  
atgtgcttag tcctctcatg 560

<210> 5569  
<211> 588  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220073a10a1

<400> 5569

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actcatgaaa atgaacctca acaagaaagt tctggatcgg aacttgagaa ggtttctgat 120  
caggcaaaat ctacagcaga aacaaatggc agtaagcttt cagctgcggc caaacctttc 180  
aatccaggaa tgttgccat gtctcaccat ttaaattcag cttccttcac aagcatgtat 240  
gatacagatg ttagtcaagg catgcacgtg gagactgtgc ttccccctgc tgttgctagg 300  
gtcccttggtg ggcctagatc gcctctgtat tatagaacca actatacttt tcgcatgaaa 360  
catggttcta ctaaagggtca aacctctatc agagaaagaa gtggatttgg gtctacaaga 420  
ataatgaatc cacatgcgcc tgagtttggt cccagaaatg cttcttanat agaagccaat 480  
gatgccaaat caaatgtttc caatgagcat aactctttgt ctgacatagg catgtcagaa 540  
gaaacaagct agatgaaaat ttgctgaaat caatggagtt ccacaaaa 588

<210> 5570

<211> 412

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073a10d1

<400> 5570

gaaataaaaa aattcccaag caaaaaatth tttttggggc tggcataaac ttggccaaca 60  
attcacaatc ttggtaaggc ccgccatgat taagtgggaa tatatttccc catttctctg 120  
gattacagct tatggcatgg ccctctttgg gggttttggg gggccccctc cccaagggga 180  
agccagcctc tgggggttcc aaaaaaatt tcccaaaggg ttctaaagta gtaaagttca 240  
tggcatgccc tcggctttta tgcctttggg aaagggaatt cttgtgagaa aggtctagga 300  
gcttttcaac ggggcaatth catgggctgc caaaagctth atttttttat atatatatat 360  
atatatttat atacatctat atatataggg tcccacaaaa ttttttctth aa 412

<210> 5571

<211> 300

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073a11a1

<400> 5571

gttctaatacg cgagcggccg cccttttttt ttttttttta cgctcttcac aaactataac 60  
ctggattcta acatatgatt acaacactga aactatacaa ccgtgcctta taaatgcaac 120  
gaaccacagg actggactgg gcagcccaat cttcataacc actatagata tccacgcaca 180  
cgctaaagag acttggaatc tctacaaaga ttaaacataa aactttgagg aattcttacg 240  
gatccactga tttgactgcc tcttaggaca atcatctcga atgatatcta ccatgaactt 300

<210> 5572

<211> 513

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220073a11d1

<400> 5572

aatatataag tgagtcttta cagcaagtgt tgagagggat aagatccata aaaaagttac 60  
atcaaagact aaatatgtca gcactcagat attgtctttg ctatcacaag gtaaaaaaat 120  
gaaaatgaga agtatacaga atttccctca cctatgctgc aggataatca aatcccttgt 180  
tatacattgc tgagatctta tgttctctgg gtacaaaata ctacaaacaa tctcaaatta 240  
aagaacagaa gattattttc cctttgcaaa tttctcaatc attaaatgtt cattgacaat 300  
atcaaaaaat ggggaagtctc tttgagggtc agaataactt gctttgcata aatgatgtca 360  
cacaggctca ctcaagtttc catgcctttt aaccttcaat ttgtgatctt cgcgatgaaag 420  
tcttaaaatt ctgaccatca gctttacacc attaaaaaag aaaaggagca ctgtctacag 480  
aggaacatcg acaccacggc tatgccggtc acg 513

<210> 5573

<211> 596

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220073a12a1

<400> 5573

gtgggttgat atctgacaaa aaaatgggcg gaggaggagc aatgaggtcg gcggcggcga 60  
agatcgccgg catcggcatt tccaaggcgg cgctccgtcc ttcggcgctc ccgacggagc 120

aggcgggtcca caacgcgtcg agaccgacat cggttggtcgg agtgaagggg gcgaaatcca 180  
 ctgaggttgc gtcgcttcac ggggcagcgc cgtgggacga ctgggacttg gccgacgacg 240  
 gcgatttggg cgcgccgagg atggtgttcg gctctgtccc cactttcgct gaagctaagg 300  
 aagccaccgc agaattgaag gatgctattg atcaagtata tccttctcct gagtctcttc 360  
 aatattcatc tcgtgggtgg caagtctctg ctttgtctcc tactgggtgg caagtctctg 420  
 ctttgtctcc tactctttat gagccagtga acagatcttg tgaagttgat gctatttcag 480  
 attcttcagc gccaagcat gccattcaag cttttcattt gctcagcaca agtcgtgatg 540  
 gtgtttcaag tcaaaatata gtattcta at cgtgaaaatt taaatgttta taaatg 596

<210> 5574  
 <211> 580  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220073a12d1  
 <400> 5574

aaacaaaagg ttaaaaataa ataaataact atccaataag actttcaa at gttaatggaa 60  
 ataaattacc gagtgcgaca catcgtcaat ttaaaaacag ttcagacttg attacatggg 120  
 tttaaaaaga tcagaaaagt caacaaattg tagttttgct tccaagagtc ttaagctctc 180  
 tttgtcacta tcaccattat cactattatt gccaaacctg tgaagggtcc tcccatgcta 240  
 attttactat ccatgaaact tgcttttagt tcccatcgat catcaccaga catcttctct 300  
 ttcatagcat caggtgttgg gaatatgttc tgaaggaaac cagacaccct acttaccaat 360  
 tcaataacgg ttagctttac attctgtaga agatccatga aatcgaaaat cccattcccc 420  
 gggtgagact catgtgacac tccaatctt tcaggggatt caactgtttc agaagtacaa 480  
 cttgagaact tatccaattg ctcagtattt cctgctgctt caagatcagc cactgactgt 540  
 tgtgactgga agaaactact gacggcagga ttttcatgac 580

<210> 5575  
 <211> 310  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220073b01a1

<400> 5575

ctcgagctat aggccaacca tggatccata tagctttaaa tgcatagaag cggttgcta 60  
agtaatggtg ggtatgatga tgatgatgat gatgcaagta gtctgtgccg aagaggatat 120  
aacgtgcatt gatagggata gggatgcact cctccaattc aaagttgcca ttgtggatga 180  
ctatggcttg ctatcatatt gcaccactgc tgaatgctgt cttcaggaac ggatatcgct 240  
gtaccaaccg taccgggcaa gttctaagtc tcgatcttca cggtcagact aactattaat 300  
tcattatgga 310

<210> 5576

<211> 409

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073b01d1

<400> 5576

aatacatgat acgctatatt tcatttcaat agcacaacc tggttaaact agcctttttc 60  
aaattatcta aacatggtat aagcacctca actgacagtg aaaaaatcta acgcgttcat 120  
atcttccaac taattgcctt ttccaagcat taacaagctt agacattgga ggattccgat 180  
ccacgagggc tcgtgtcttc cagggactag ttaagcttca gccatgcacc tttggtacat 240  
ctatcaacag atatcgctac cttgacatga atactgcctg acagagtgtt cacgaacttg 300  
aaataagcct gtctctcaag aaagcctgaa ctacattgag ccaaacacca cccaaaagct 360  
aattacaaat tccaatgcca tacgcatggt aaattcacga ctgaaaagt 409

<210> 5577

<211> 575

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220073b02a1

<400> 5577

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accgcgtaaa gcttttggtt gggctgcttt agacaattct ggcacccttg ccccttttca 120

tttctccaga agggaaaatg gcgtcgatga cgtcactctc aagattctct tctgcggggt 180  
 ttgccactct gatctccaca ctctcaaaaa cgactgggggt ttcaccacct accctgtcgt 240  
 tcctgggcat gaaattgttg gtgttgtgac agaagttgga aacaatgtga aaaacttcaa 300  
 agtgggtgat aaagttggag ttggtgtgat agtggagtct tgcaaggaat gtgaaaattg 360  
 ccaacaggat ctggagaatt actgtccccg ccctgtgttt acctataact ctcttatta 420  
 tgatgggaca cgaacccaag gtggttattc taacattgtg gtcgtgcacc aacgttatgt 480  
 gcttccggtt tctgagaact tgcccctnga tgcttgtgct tctctgctgc gtggctggat 540  
 aactngtat agcccaattg aatattatgg gatga 575

<210> 5578  
 <211> 566  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220073b02d1  
 <400> 5578

aatgtaaatt caaaacccaa agtattatta attgaagagc ggatgctctc atctttaag 60  
 ttcaacatct tatagactag ttaataccac caatcttaac tacttcaaaa atactgacac 120  
 atgatgcaaa gagttggaga atcacagtgg attctaaaaa cttgagaaag agctogccac 180  
 atcaatcaca aagcgatatt tcacatcagc tctgctaagc ctttccatgg ctgtgttgat 240  
 ctgatccatc ttaatcagct caatatctgc agttatgttg tgctttccgc agaaatcaag 300  
 catttctga gtttctttca gccctccaaa gttgctcccc cctataagct ttcgtcctgc 360  
 aactaaagga aagataggaa gctcaagggg ttgttaggc aaccctacag taactagctt 420  
 cccattcagc ttcagcagac caagcagtgg aatcaaggaa tgaacagcag aaattgtgtc 480  
 tatgatatag tccatgggtc ccaaagcagc cttcattttt gcagggtctg atgaaacaag 540  
 ggaaaaatca gccccgagtc ggtcaa 566

<210> 5579  
 <211> 493  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220073b03a1

<400> 5579

cacaactcca ctcttagctg ccattgggtt ttcttcttcc atttctcttc ctttctaage 60  
ttttttcgat taccatttg gagattctgt cctaattggct cttgctcctt ccaaagtttc 120  
ctccttttcc gggttttctc ccaaaccag tgttggggat gctctgaaaa acccaacttg 180  
ctctgtttct ctgagctttg cgaatgtgaa acttggaagc agaaacctta gggtttgccg 240  
ctcaactgtg cctctctcag ggggtgattt cgaacccttc gaggagggtta agaaggggtga 300  
acttgctgtt ccaacggctc cccaagtctc gcttgctcgt cagaactacg ctgatgagtg 360  
cgaatctgcc attaatgagc agatgaatgt ggaatacaat gcttactatg cgtaccactc 420  
cttgtttgca tactttgaca gggacaacgt ggctctcaag ggatttgcca agttcttcaa 480  
ggaatctagt gag 493

<210> 5580

<211> 566

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073b03d1

<400> 5580

cgttgaaaag catatatcaa atgttattgo ataataggct tgcagccttt tacatgtgct 60  
actagcaatt acattactcc gagttcctaa atcccagtag ataggaaaaa catttaata 120  
ctatttttaa aatagaaaac aaccacagaac ttcagaaaag accaaaggta aacgaagact 180  
actaataagg taattcaaga ttaagcagca tcttcctaata caagaagtct ttgatcaaag 240  
tgccaaacac cgtgaccctt tccaaccctt ctcaactgag ccacatactc tgaaattttc 300  
ttaattgatt caacctgttc agacaaaaac togttttcaa tgaagtctgc caattgaggg 360  
tcattgttgc gatctgccac actgtgcaca ttcagaagtt tctcattcac taacttctcc 420  
aaagacaaag ctaattccat tgcatacaat gcateccctt tttccacatg ctcaaattct 480  
gaggggacat tcttgatggc gtgaagaaca acccttcac cgcgagtatt ctgatatttc 540  
atgaagcttt tagcgtgctc tctttc 566

<210> 5581

<211> 567

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073b04a1

<400> 5581

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aagcctgagt ttagttccaa ggacactttc atagaagatg ctgccaatat gccacaaacc 120  
actagtatta agcttttttg aagaacggtc tctatggtag gtaatcagaa gtcactgaac 180  
atagatgatg atgatggtaa gccataact gtgaagtctg atgaagtaga tgatgttgag 240  
aatgagaagc ttggccaatc aggagaatcc aagcaagtag atacacaatt atcacttggt 300  
gtggtttagt gtaactggat tataacacct gatgctgatg gagctaatac aaccagcata 360  
gagcccccaa aggagaacct atgcttcagt gaatgtgcac ctgatgcatc ttttccgcag 420  
tggagtttgt accaaggcct tccacctttc tacctgaggc catgcaatca ggtcctaaat 480  
cccttgcttc ttaggccttc tttgaaagta gaaccagaga ggaggagagt tgttgactg 540  
ttccacactg aatagttggg acatgaa 567

<210> 5582

<211> 548

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073b04d1

<400> 5582

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actagcaatt acattactcc gagttcctaa atcccagtag ataggaaaa catttaaata 120  
ctattttaaa atagaaatca acccagaact tcagaaaaga ccaaaggtaa acgaagacta 180  
ctaataaggt aattcaagat taagcagcat cttcctaata aagaagtctt tgatcaaagt 240  
gccaaacacc gtgacccttt ccaacccttc tcaactgagc cacatactct gaaattttct 300  
taattgattc aacctgttca gacaaaaact cgctttcaat gaagtctgcc aattgagggt 360  
cattgttgcg atctgccaca ctgtgcacat tcagaagttt ctcattcact aacttctcca 420  
aagacaaagc taattccatt gcatacaatg catccccctt ttcacatgct caaattctga 480  
ggggacattc ttgatggcgc gaaaaacaac cctttcaccc cgagtattct gatatttcat 540



gagctttt

548

<210> 5583  
<211> 382  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073b05a1

<400> 5583

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ctttccagat ctggtagatt ccgcacatgg ctcaaccgct cgccaagaag gactatgacc 120  
gccacgacca agctgagtgt cctccctttt tgagaatcga agcgggagct gttcttcaag 180  
aggccatagt ttttaatgac ccacaactag atgctaggag atgttcacag gttatcacac 240  
aacttttata tctactgaat cagggacgag acatttaca agaccgaagc tcacataatg 300  
gtcgcttttc tgcattctaa cttctccagt ctcgggatct agcggttaacg agactggctc 360  
acctgagcat agaggagctt tc 382

<210> 5584  
<211> 420  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073b05d1

<400> 5584

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ctccgtcctt cggcgtccc gacggaacat gcggtccaca acgcgtcctg acccgctcgt 120  
tttgtcggag tgaagggggc gaaatccact gaggttgctg cgcttcacgc ggcagcgccg 180  
tgggacgact gggacttggc cgacgacggc gatttggacg tgccgaggat ggtgtgcggc 240  
tctgttccca ctttagctga agctaataaa gccaccgcag aactgaatga tgctattgat 300  
caagtatata catctcctga gtctctcaa tattcatctc gtggtggtca agtctatgct 360  
ttgactccta ctggtggtca agtactctgc tgctgtctgt actcggtatg agccagtgat 420

<210> 5585  
<211> 488  
<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220073b06a1

<400> 5585

ggcgagtaat ggataccatg cttgtttccc gtgtagaat cttgcatata agatctttgc 60  
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aggccaacgc tggacccagt agaagttcta gccgagcaag cagtcctgga agatcttcta 180  
tgcaatatgt tgatgagcag atccagggat ttaaagttag tctaaagcca gaaaagaaat 240  
ccaaattttc atctgttgtg ttgaagatac gtgggattga tgaggaaacc tggagacagc 300  
aagtaactgg gggaaagctt agggaaatta gtgaggaagc aaaaaatttt gcaattggaa 360  
acaaggctct tgctgcacta tttgtacata cccagcagg agaactgcag cgccaaatta 420  
gatcctggct tgcagagaag tttgattttc taccctgtat gggaaatgat gcaccagggg 480  
ggaccact 488

<210> 5586

<211> 524

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmfl02220073b06d1

<400> 5586

ttgattgagt tgttttttga gttcttcatt ttcttttcca ttgttttttg cttggtggct 60  
ctcttgattt ctttgacttc cccttattaa ctggttactc ttttatcgtc tgcgtactg 120  
cgctaccctt ttgtcgctcg tctacgcctt tctgctgctc ggtaacgcta actacgaaac 180  
ccgtactctc cctctctgac ccaaaacaac aacagaaccc aataatgcaa tccctccgaa 240  
gaaggctcctg gttcccatcg gattgggcac cgaagaaaag gaagccgata tcatgactca 300  
cgttctgcgc cgagccggcg ccgacgaacc gttgcctacg aggagccgca gctccaagta 360  
gaagccgccg gaggcaccaa actgggcgcc gataccgaca tttacgcgtg tcccgatcaa 420  
gttttcgata tcgtttgctt tgccccggca gggagggacg cccggctctg caagactacg 480  
gtaatgcaa gtgctgccgg aaattacgtg cagacaagct gagg 524

<210> 5587

<211> 469  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073b07a1

<400> 5587

gccggatata caagatgacc agacaatgct gtatctccag ccggacaggg agcttcgtca 60  
acactgtacg ggatcaacga gcagttacac taagtcgcac gattaggagc tttatcttat 120  
accaccttgt accaatggct ggagatcacc actactcttg cacctcctta tgagaccaca 180  
gctgccatga cctacacact tttatcctcg accaaccttt tggatgctac agtgtagttc 240  
atgctcatga ccatgttata tgagagtcac cactccaata cttaccgtac tacttgcgaa 300  
ggcgtaatca atcatggcga gaatctggat caggatatta cccggcatga ttactacgac 360  
aacaacaact gcactagcta cgtgcttcag atgagccctt ctcacatggc aatcatggct 420  
aggccaacac gccacctttg aaacatggat catgaggaca acatgctat 469

<210> 5588  
<211> 375  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073b07d1

<400> 5588

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taccatacgg cacattcaac tagtagatat tacagttctt tgtttcataa cgatttgatc 120  
cgtaacctct tgttgtctcc cattttatct atgtgactcg aataactcct ggctattgat 180  
cactgaaatg gaagatattg aggactcatg agtggctgat cgaacatgaa gttccattgg 240  
ggattagagc tcggaatatt gcaggaggaa cttcgatatt tctttgaagg gtacaatctc 300  
atggtgcgct aatgatgcat gttcgaaagg tggcgttttg gcctatccat gctttccatg 360  
tggaagggt tcttc 375

<210> 5589  
<211> 583  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220073b08a1

<400> 5589

gccggatata caagaagacc aaacatgctg tatctccaac cacagaggca gcatcatcaa 60  
cactgcacgt gatcaatgag caattagatc aagcagaaga agaggagcaa atcaaagaca 120  
acctttttacc aattttgaag aacaacacta ctcttgtccc tcctcaacaa accacactgc 180  
tcatgtctca taaatcttta tccttttcca acctcttga tgccacagat tactccatgc 240  
tcagcaccat cttatctgag aataaccact ccaataatta cttactcca agtgaagcct 300  
tattcaataa ttgcgagaat ctggatcagg aaattacccc ccaaattac tactacaaca 360  
acaacaccaa tagctacttg tttcagaaga acccttcca catggaaaac atggctaggc 420  
caaaacgcca gctttcaaac atggatcatg aggacaacat gatattatac cttcaaaga 480  
aatatcaaag ttctcttgc aattttccta actctaatec acaatggaac ttcattgtca 540  
agcagtcact catgagtnct caatatcttt cattcagtga taa 583

<210> 5590  
<211> 437  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073b08d1

<400> 5590

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taccatcagg cacattcaac tagtagatat ttacttctt tttttcattt ttattttctc 120  
cctaaccttt ttttgttctt ttcttttctt tatgtgactc gtataatttt tggctattta 180  
tcactgaaat ggaagatatt gaggactcat gagtggctgc ttgaacatga agttccattg 240  
tggattagag ttaggaaaat tgcaagagga actttgatat ttctttgaag ggtataatat 300  
catgttgccc tcatgatcca tgtttgaaag gtggcggttt ggcttagcca tgttttccat 360  
gtgggaaggg ttcttctgaa acacgtagct attggtgttt gtgatgcagc agtaattttg 420  
gggggtaact tcctgat 437

<210> 5591  
<211> 548

<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073b09a1

<400> 5591

cacaactcca ctcttagctg ccattggttt ttcttcttcc atttctcttc ctttctaagc 60  
ttttttcgat taccatttg gagattctgt cctaattggct cttgctcctt ccaaagtttc 120  
ctccttttcc gggttttctc ccaaaccag tggtgggat gctctgaaa acccaacttg 180  
ctctgtttct ctgagctttg cgaatgtgaa acttgaagc agaaacctta gggtttgtgc 240  
ctcaactgtg cctctctcag gggtgatttt cgaacccttc gaggagggtta agaagggtga 300  
acttgctgtt ccaacggctc cccaagtctc gcttgctcgt cagaactacg ctgatgagtg 360  
tgaatctgcc attaatgagc agataaatgt ggaatacaat gcttcctatg cgtaccactc 420  
cttgtttgca tactttgaca gggacaacgt ggctctcaag ggatctgccc agttcttcaa 480  
ggaatctagt gaggaagaaa gagagcacgc ttgaaagctc atgacatatc agaatactcg 540  
cggtggaa 548

<210> 5592  
<211> 406  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073b09d1

<400> 5592

aaaaaaggaa aaaaaagtat cggaccaatt agaaaaacca ttatagcca atcaaaaacc 60  
ccggggttgc aagggaagaa aacccttttg gtgccaaca ttatgggtcc taccgccaac 120  
ccccaaggc ccacccaaa acacctttct ctctttcttt gcccttttt atcccaaccg 180  
gtctttgaaa tcaaagaaat tccaccaag aagaaccacc ctctcattc attcaatcca 240  
actaaagtcc gaaggtttac acccaaaatc cagctttggg ttcacctggg ctcggataaa 300  
cctttccagg cgaggaaattc cccagttaa acccaaagcc tctggggggg gcacttttgt 360  
agagcccggg ggaaaaaaa aggggtcacc ggggtccccc aggggg 406

<210> 5593  
<211> 526

<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073b10a1

<400> 5593

caaaaattcg atccgaatgt attagatctc aaatcatttc tactgaaaac tacagccatc 60  
gaattccctg caattaacat aagcataacc cctttccaac ctttctctc ttcagatcgg 120  
atcagatcag atccaccgcc atggatttca tgaaggtctt cgatcaaacc gttcgagaaa 180  
taaagagaga ggtgaatctg aaggtgctca agattccgga aatcgaacag aaggtgctgg 240  
atgctactga taatgaacct tggggctctc atgggtactgt gctggcagag atttcacagg 300  
ctacaaaaaa atttactgaa tgtcaaatac tcatgaatgt cctttggaca agactgggtg 360  
aaactggaaa agattggcgc tatgtataca aggcattagc tgatcatagaa tatttggtag 420  
cacatggatc tgaacgtgca gttgatgaca ttatagaaca tacttttcag atctctgcac 480  
tttctagctt tgaatatgtt gaacctagtg cgaaggatgt gggact 526

<210> 5594  
<211> 102  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073b10d1

<400> 5594

tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 60  
tttttttttt tttttttttt tttttttttt tttttttttt tt 102

<210> 5595  
<211> 442  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073b11a1

<400> 5595

cttcaaaaca ctcataacac aaagcacaat gcaaagctca tccttgagtt aaaaaatggc 60  
agcagcttct tccatggctc tctcatcccc atccttgggt ggcaaggccg tgaagctggg 120  
cccatcagcc ccagaagtgg gaaggggtgag catgaggaag accgtcacca agcaggtctc 180

ctcaggaagc ccatggtacg gccagaccg agtcaagtac ttgggcccac tctctggcga 240  
 gccccgtcc tacctaaccg gtgagttccc aggcgactac ggctgggaca ctgctgggct 300  
 ttccgcagac ccagaaacct tcgccaagaa ccgcgaactc gaagtgatcc actccaggtg 360  
 ggccatgctc ggagccttgg gctgctgctt cccagagctg ctgtcccgca acggggtgaa 420  
 gttcggagaa gccgtgtggt tc 442

<210> 5596  
 <211> 455  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073b11d1

<400> 5596

acacatagtt aaccatttat atcatttatt gaaaaagtaa ttaatgtttg agtaaccaca 60  
 tatattctat ttcattccatt tgaggaagtt tgtataaaac tacagatagt gtaggcagtt 120  
 cctacccttg gctgaaaaga gatacttata aggcaaaatt taaaaataaa taaataataa 180  
 ccatagatag caatgaatac aaaattaagc cacaagccac atgaagtaag ttgtccaaaa 240  
 agtgactgca actgaggcca aagcatatgt ccatagcatg ataacagaac attcaccttc 300  
 accagctcca aacaattgcg cgattggggc tatagccatt gctgggtggaa gtgcatattg 360  
 aaggagaagc acaaactgat ataagggatc tggttgacac aaaccaact gtgttgctcc 420  
 tttaataact agaataccca aaattggcag gaaaa 455

<210> 5597  
 <211> 464  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073b12a1

<400> 5597

gttcgatata ttttgctgcc aattttgggt attgtagata ttaaaggagc aacacaggtg 60  
 ggattggtgc aaccagatcc cttatatcag ttcgtgcttc ttcttcaata tgcacttgca 120  
 ccagcaatgg ctataggcac aaatcgcgca tttgtttgga gctggtgaag gtgaatgttc 180  
 tgttatgatg ctatggacat atgctttggc ctgaggtgca atcacttttt ggacaactta 240

cttcaagtgg cttgtggcctt aattggtgat tcattgctat ctatgggttat tatatattta 300  
 tgtataacac gtgccttata aggatgtttt ttcacccagg ggttggaact gtctacacta 360  
 tctgaaggat tatacaaaact tcctcaaag gatgaaacag actctgtgtg gctactcaat 420  
 catttattac tttctcaata aatgatataa aatggttact atgt 464

<210> 5598  
 <211> 429  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073b12d1

<400> 5598

acacatagtg taccatttat atcatttatt gtacaagtaa ttaatgtttg agtaaccaca 60  
 tttattctat ttcattccatt cgtggaagtt tgtataacac tacagactgg gttagctggg 120  
 cctacccttg gctgaaaaga gatacttatg aggcaaaatt tacaagtgtc taaatcatta 180  
 ccatacattg caatgattac aaatttaatc cacaagccac atgaagtaag ttgccacta 240  
 agtgactgca actgaagcca aggcataatg ccatagcatg attacagaac attcaccttt 300  
 accagctcca aacgattgag cgattggggc tataggcatt gctggtggat gcgcactctg 360  
 acggagacgc acaaactgac attagggatc tgatcgctcc aaaccaact gcgatgctcc 420  
 tttaataac 429

<210> 5599  
 <211> 342  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073c01a1

<400> 5599

gtactgctct gccctatctt gaagacactc tacaaaattt tgatatcaag ggaacagtca 60  
 tcacaagtta ttctgaaagc cttgacggat gaaaatctga atgatcctcg agaacgaatt 120  
 gagattgcac aaagccatgt tttctacaag ccttcacttc ttggacaacc ctgattgttt 180  
 tctcattggc aaaagccaaa tgtggatgca actatatatg gaagcatttg tcaactcaaa 240  
 gagaatattt aaatgagcat gaatgtattg ttttgtgat gattttgtat tacattgttg 300



tatgtatata tgtcaaaata taagccacta agcaattgga ct

342

<210> 5600  
<211> 450  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073c01d1

<400> 5600

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tttttttttt tttctttttt gactggttgt tctctaata caacaaaaat gaaaacagca 120  
accataaaag aagacacgta taccctacaa ctcaaaagag tgccaccata cattttggca 180  
cttttagtacg caggatgccg caatcgatag cagcttaaaa aggagaataa tataatcaca 240  
ataacgggag agagagatac gaacaaaaag ccatgccaaa aagcttcaca agctgggtaa 300  
tgccgacata aagaatgagc gaaaatgtga tgggaagaga ataaaaactg ggaattacac 360  
tttgggaacc caccaaagag aaaatgccgg ttgctaaggc ttgagaaaaa gaagcctcca 420  
gctgctggct gtgaaggagt gacaccagac 450

<210> 5601  
<211> 463  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073c02a1

<400> 5601

ggcatcatgg cgaccagggc gcaatacctg atccaatggg cgctcttatg gactgcacca 60  
cagtgcattc aacctcatga caaccaaggc gcacgccaca gcgcactcga acccgattcc 120  
attcccatca tagaacattc atccttctac aaacaccgaa cgcgctcca accgcgactg 180  
catagctcgc gcttgccgag aatggggcgc cttccatgta acgaacaaa ggggcctcca 240  
ttcgctactc gattgcttgc gcttgccgag actgtggttc ttctcagaga cacgaatacc 300  
tgacaagctc cgttactcct gcttcgcctc cgctgcgag ggctacggca gtatactgct 360  
cgctgcatct agatgcgac aaaaccacct gcgtctatgc cgtcatggat ggctacgccc 420  
ctaactgac ccgtttcatg tctgatgagg ctatcgaagg cgg 463

<210> 5602  
<211> 532  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073c02d1

<400> 5602

acaatcaaat accaatttct ataatacttt gaatagttaa ttggtcaaatt tggcaaatta 60  
gcgtcattct cagtttgagt tggattccaa gatccatatg aaaacagtat gttgatatca 120  
gaactttttg catgagagtt aattttactt cctttcactc ccaagatata agacatgaga 180  
ctaggagaga aaaaaagcat tagcttaagg atccagcaaa agtgcataca tatttcgttt 240  
tcctccaggg ccttttggtat accatgatga tacatagtct ccataaaca catcacggta 300  
tttagctagt gagtcgttta tcagttcaga agcaggggaa atcttgactg tcttagcagg 360  
gtcatgaaat gttgccacag agagccttgc tctatcagga ttagtgattg ccctatgctc 420  
acagctcctg tactttccat tggttataat ctgagtttgg tcagcccata gaacaaggat 480  
agcatctgac agaggctgaa cagtgaccca cttgtaccac ccttgagaac ct 532

<210> 5603  
<211> 535  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073c03a1

<400> 5603

caaaacactc ataacacaaa gcacaaagca aagctcatcc ttgagttaa aaatggcagc 60  
agcttcttcc atggctctct catccccatc cttggctggc aaggccgtga agctgggccc 120  
atcagcccca gaagtgggaa gggtagcat gaggaagacc gtcaccaagc aggtctcctc 180  
aggaagccca tggtagggc cagaccgagt caagtacttg ggcccattct ctggcgagcc 240  
cccgtctac ctaaccggtg agttcccagg cgactacggc tgggacactg ctgggctttc 300  
cgcagaccca gaaaccttcg ccaagaaccg tgaactcgaa gtgatccact ccaggtgggc 360  
catgctcgga gccttgggct gcgtcttccc ggagttgctg tcccgcacgg ggtgaagttc 420  
ggagaagccg tgtggctcaa ggccgggtcc cagatcttca gcgaggggtg gctcgactac 480

ttgggcaacc caagcctgat tcacgccag agcatcctcg ccatctgggc cacac 535

<210> 5604  
<211> 432  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073c03d1

<400> 5604

gtaaaaagca agtaacatta agttggattc ggattcccaa gataattcac attatctgaa 60  
gtacttcacc aaacacaaat ctaaaaactc tcaaaagtca ttctgttctt tgacgctcac 120  
tttccgggga ccaagttggg ggcataggcc catgcgttgt tgttgacagg gtcagcaagg 180  
tgatcggcga ggttctccaa tggacccttt ccggtgacaa tggcctgaac aaagaagcca 240  
aacattgaga acatggccaa tcgtccgttc ttgagttcct tcaccttaag ctacgcaaaa 300  
gcctctgggt catgagcaag gcccaatggg tcgaagctgc cacctgggta gattgggtca 360  
gtgacctcac cgagggggcc accagcaata cggtaacctt taacggcacc cattaggata 420  
acttgtgtgg cc 432

<210> 5605  
<211> 500  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073c04a1

<400> 5605

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atatcaacag cattaccagt gttaaggggtg tcatcggaac cggcattaac atcattggag 120  
gagtcgtcga caccgttact gctttggcgt cccacatctc catccagctc attagtcca 180  
ccaaggctga tggacatggg aaaggaaaag ttggaaaggc tacaaattta agaggacaag 240  
tgtcgttacc aaccttggga gctggcgaag atgcatacga tgttcatttt gaatgggaca 300  
gtgacttcgg aattcccggg gcattttaca ttaagaactt catgcaagtt gagttctatc 360  
tcaagtctct aactctcgaa gacattccaa accacggaac cattcacttc gtatgcaact 420  
cctgcgttta caactcaaaa tcctaccatt ctgatcgcat gttctttgcc aacaatacat 480

atcttccaag cgagacaccg

500

<210> 5606

<211> 523

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073c04d1

<400> 5606

aaaaatacca tttatcacgt actatcttgc atcagcttag agacttttct tttttattgc 60  
atgtgagact aaactgtttt agttgactat attttcttgg atgttcctaa aattacaaat 120  
ctacttttgc ttattagaag gaatcatctt cagaaaattg ggaagtgtta ttgaagaaac 180  
atgtctgtct acgcacaagt agcttcaact gctaaacttt ttgccactcc tctacaaggg 240  
tttccgaatg tctcacttga tactccaaca ctacaactgc ttgatccaat gcaggccttc 300  
tgcacaatag aaagagcctt gttgctgctg cagcgccgtt ggtagaagtt accacaggtt 360  
ccaaggggtg ttccatagct agcaaattta atggaagaga tgacttggtt atcatgaggg 420  
caagtgagtg atagcacagg acctactttt cttcctgatt ctgtatctga gttccacaag 480  
tctacgggtg gtgggtgaga atcggatata tgtgcacaca aac 523

<210> 5607

<211> 493

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073c05a1

<400> 5607

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aacaatttgg aaacttggag aatttgaaac ttctaaggct aagttcctgt actgatttgc 120  
aagagatacc aaattctatt ggaagacttt cgaatctaag acatatggac atctcaaact 180  
gcattaacct tccaaattta ccagaggact ttggtaatct ttgtaatcta agaaatctgt 240  
acatgacaag ttgtccaagg tgtgaattgc cacccttaat catcaatctt gagaatttaa 300  
aagaggtggt atgtgatgaa gagacggctg cttcatggga agctttttaa cctatgcttc 360  
ccaatctaaa gatagatggt cctcaacttg atgttaactt aaattggctt catgaaattc 420

gctcctaagt cctaatacct gtttcatgct aatgtcattg tgtagtggc tttccggtt 480  
gattagcaat ctt 493

<210> 5608  
<211> 285  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073c05d1

<400> 5608

gaataatgat ggggtatatg agtattattt tatttttggg atgagggaga atttatgcaa 60  
aagagacaac aaaaaagaga caccattttg tataagggtg ctaacttga cttatacgt 120  
agggggcgga tgcaaagtga tctggcgagg caaaagggcg ttttccccgt ggaagataaa 180  
atgctgggca agatagaggc tggggccgag attgtgggcc tggcattaac aggttcaggg 240  
gatgctgcag ctgggctgaa cgagaaatca ataacagtaa ggggt 285

<210> 5609  
<211> 434  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073c06a1

<400> 5609

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gaacataggc agcaatgatt acatgggcaa ttacttcctt cccccgttct acccaacaag 120  
caccatttat accattgagg agtttacaca agttctgatt gaagagttat ctctgaattt 180  
acaggcttta catgacattg gagcaagaaa gtatgccttg gctgggttgg gccttatagg 240  
atgcacccca ggtatggcga gtgctcatgg gacaaatgga tcatgtgctg aagagcaaaa 300  
tctcgctgca ttcaatttca ataacaagct taaagctcga gtggatcaat tcaacaatga 360  
tttctattat gctaattcca aattcatctt tataaacact caagcattgg ccattgagct 420  
tcgcgataaa tatg 434

<210> 5610  
<211> 434

<212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220073c06d1  
  
 <400> 5610  
  
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 caactccata tgaacgacta catgataacc agaacttatt caggggcact aagttgtgaa 180  
 ggggactcat ttgtgagctc caattccatc ttaatttcat gatcaacaag gtgcttgata 240  
 tccattggat aagtgaaggc tgaattagcg gtagaattat aagatgtcaa tgcattgagt 300  
 aggttccatt gtcggtggg atggaaagca tcaaaaaaca catagccatt cctattatag 360  
 cacggctctt gatcaggaac acactcccct gttaatcccg gtaggcagca aggagtttcc 420  
 ggaaccggaa aacc 434

<210> 5611  
 <211> 535  
 <212> DNA  
 <213> Glycine max  
  
 <223> Clone ID: jC-gmf102220073c07a1  
  
 <400> 5611  
  
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 tttctctgtg caccatttgt tcttgtctca aagtaaaagt gtgtgtatat aaaagaggtc 120  
 cctcttctca gttctttgaa aacctcaaca actcaacacg ttgcctctac tctctgcagc 180  
 ttttaatttg ttgcaggca cacaaccatg gctgctctct ccaacggcca cgacgcttcc 240  
 ttcttcaaga tgccctccat caagttcacc aagctcttca tcaatggaga atttgttgat 300  
 tccctttcag ggaaggagtt tgaacaata gatccagga caggagaagt gattacaaga 360  
 atcgcagaat gagcaaaaga tgacattgat gttgctgtca aagcggcacg tgacgctttc 420  
 gactatggtc catggccccg tatgcccggg gctgaaagag caaatatcat gatgaaatgg 480  
 gcagacttaa ttgatcagaa catccaggac atagcagcat tggatgccat tgatg 535

<210> 5612  
 <211> 566

<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073c07d1

<400> 5612

gactaaaaat gtatttaaac acttattaat ttgatgaagt atacgtttta ggaagctctt 60  
ctatagttca ccattgttta tatccacaca acacaaaaaa aaataaaaaa aatcaaagcc 120  
agggagaatt gtaaattggga gttacaacag atttaacttg aagatacttg tgtagggtct 180  
ccattccaaa atctcttcca aatccactca tcttgtagcc ccataagga atgtcatccc 240  
caaaggcaaa ataacagttg atccaaacaa tgctgcact aatggacctt gacacactgt 300  
agtgtgtgtc caaactcttt gtcacaatgc ctgatgctag gccatacctt gtattattgg 360  
caatcttaat tgcattgatg acactcttaa acttcatcaa agccattaca gggccaaata 420  
tttcatcttg tactataagc atgtctctct taacattgga gaaaattgta ggctcaatgt 480  
agtaaccctt gttgcccact cttttgcccc ctgtcaaaag ggttgacact tctttctttc 540  
catgctcgat taggaaagaa tctttt 566

<210> 5613  
<211> 522  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073c08a1

<400> 5613

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ctcaccacct aggggttttct ttccacttc gtagctatgc tcgactcact ccgcgttttt 180  
ccgatcgaac gacgccgttt tggcgagttt tagcttcggt tcgtctcccg acgcggactc 240  
attgcttgct ttcgtttccc acgcgattgt tggaggagtc gtgttgcggt cgttgaccga 300  
ggaggtgcaa ttagggtttc caaattcgg ttttgatga ggctctgaga tggggattta 360  
ggttcttagg agcgggtgtg ttgttggtgc tgatcgattt ggagtgggga acttgcaag 420  
tgaagaggga tgttctactc tcagtttatt ttggccaaga cagggccact tgcgactata 480  
tggatagctg cgcatttggg gaggaagctc cgcaggacca gg 522

<210> 5614  
<211> 508  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmfl02220073c08d1

<400> 5614

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atatgatgcc tagagaaagc agaatgtcat tcttactagg agggatgcgt ttaaacgaca 120  
tacaaattag cctctgcaac ttacagattg tgacatttta caaaaatata tacattaaga 180  
cccagaataa tcaataggat gattattata caagtgccac ttcaaaaact aaaactgaac 240  
agctaaaccc tatctccaaa aaattataaa tgaaaagcca tatatggcta gaatcgggga 300  
gaaatgtcga aaatattatc ccaaccctgc agataccagc caaactacca ccgaatggat 360  
ctttacaact atatctgtca ttcctacatg aggtttcaga aatctgactg cataagcttc 420  
attcgaggct atatgtgac atttgcaaag ggttntgact gttctacatg gacataatcc 480  
ctggtcttga gaaccagagt ttcaaaaa 508

<210> 5615  
<211> 487  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073c09a1

<400> 5615

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caacacgacg atctcaccga caaccttttt gtcttcgtta acacacacat ctgacacctg 180  
gcgtgtcctt ttctcactgc agattaaata aatattaatt aactaataaa tgtacatata 240  
tagtagttgc ttaacctggc tctatattct tcactctcct tctctccca tttgattccc 300  
ttccctctca ccaagtttta tgatctctgt catttcctca actactttta ttttccattt 360  
atatctactc acaaagcaac atcatttcca cttgcatttc acacgcatgt gagacacgac 420



ccaaataaca cacaaagcaa agtaagggtg ctttgcattg tgttaacaaa caaggcaacc 480  
tcattat 487

<210> 5616  
<211> 547  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073c09d1

<400> 5616

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ccatgaatat aattttgcac gctataatta tctttcgcca caaacaatgg agtagtgctc 120  
aacaaagcac aaaccaacaa taataacagt tttagttgca ttaatttaca caagaaagta 180  
aattaacgta ataggcaaca catgtgtgtc acgttcatga ggatcatttt ataatgatat 240  
gcaacattga attaaatatt ctcatgcaat ggagcattct ggaggaaggc cttgagggaa 300  
acgtctgata tcagtgcaat aattgtaaatt catgtaattc ttttgcaccc aacggatctt 360  
tgccctgccc gtggcgcca gtgattggcc agtggaggaa gaagtttggg aattgaagtt 420  
tctgtatgag gctgtgaatg gggccttgct ccaatccgtt tttacaagcc cacccttgt 480  
ggcccaatcc tcagcgttcc aaagactaga gtatattctc atgggttggc tctttgggaa 540  
tggaacc 547

<210> 5617  
<211> 577  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073c10a1

<400> 5617

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tttataccct tctcgaatac aaactctctc tgtgaaaaag aacaaacccg atttggtttc 120  
tctggatgac ttctattgca accaactccc tctcctcctt caccagcgaa accctaaccc 180  
cttcatcacc actcccagc tctccacct catgcaatgg aagctcacgc gcggcaaatg 240  
gaggccgcgt ctgttggatt tcgtgtcgtc cctagacgac gccgttgtga aatccgcttc 300

tcagaaggcg tttcagagcc ttcccgatgt atccaaagcc gtttccgagc tcaactgtgtt 360  
gaaaggcggtt ggtcccgcca cgcctctgc cgttttggtt accttcgccc ctcaactaac 420  
ccctttcatg tctgatgaag ctatggaagc agctcttgga agctcaaaag attattcact 480  
gaagcaatat ataaaatttg tggatcagtt gcacaggaaa gccgaaggac taagttcaga 540  
aggcgattcc cttaccccat ctgatgtacd aagggct 577

<210> 5618  
<211> 599  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073c10d1

<400> 5618

aacatgacct taagcagcag ttattattac ctcaaataaa acaaagacat aacaccatcc 60  
gtttcaaata catgaaaag ttccaaaact aacttcaata actaatgtgt aaccaaagac 120  
ctctaacaaa tagcaacata aaagccagcc cttcgtttgg taatgcatta ttcacctta 180  
ttatttgcta tctgcagcaa ctgccgaac tagaggcttc attctttgcc atctgcagcc 240  
cgaagggaac caagttgaac tggggcttga gtctgaacca ctttgatga tccatagcct 300  
gataaatcaa caccttctgc cttctctttc tcaagctgct ctttgatcca aaagtatgta 360  
attctcagcc catccttcaa cttcatagtt ggagcccagc caagtttctc tttgattaat 420  
gtattgtctg aattacgacc ccgaacacct ttagggccag gaatatggta tattggata 480  
ttcttatect aaagctaaga acaatctcag ccatctcatt catgctgacc atttcatcac 540  
ttccaatatt caccggcttc cggaagtctg attagtcaat ctagtacacc ttcacacac 599

<210> 5619  
<211> 534  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073c11a1

<400> 5619

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tctgcaaagc gcacttttgc gctttgggggt tcccttggtg cttgttatca ctttctgtta 120

tgctacttct actgctgcag caacaactca agtttcaggg aatgaagagc tgccaaagac 180  
 aaacctaaat gggcatgatg aagaagcaaa attcggattt tttcatcata aaccaatatt 240  
 caagaaacat attccaattc cagtatataa acctgtacca aagccatttc cagtgtataa 300  
 acctatacca aagccagttc cagttccagt gtacaagcct attccaaagc cagtgtataa 360  
 gcctattcca aagccagttc cagtgtacaa gcctatacca aagccagttc cagttccagt 420  
 gtataagcct attccaaagc cagtgtacaa gcctattccg aagccagtgt ataagcctat 480  
 tccaaagcca gttccagtgt acaagcctat accaaaagcc agttcagttt cagt 534

<210> 5620  
 <211> 401  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073c11d1

<400> 5620

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 atccatccaa atcaatttac aacggcaatg ctgaaaaaat ttttggggca aatgaaccgc 120  
 atttttttcta atccaatgcc caaaagtccc atgggatttt tacaaaaacc ccgttgatgt 180  
 tttaaaccac acgtagcttt tttggaaata aaaggggata acgttctaag gccaataatt 240  
 tttttggacc cggccaaatc attttatggg gttgaaattg gaggaattgt tttgggaatt 300  
 ggaaaatgta aaaaaccggg ctttatcaaa tttgggggaa gtttaggaat aggttttctg 360  
 aaaaaaggct ctggcttaaa aaatgacttt ggcttaaggg a 401

<210> 5621  
 <211> 352  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073c12a1

<400> 5621

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 ttggtgaagc tcagtgtgac gctgtgggga gacatggtaa actgcattaa actatggttg 120  
 tgcttcatgt actgctgtat cttgaagtca aggctgaagg gatggagatg tgacttatag 180

aacacgtaat gggatcgggtg gctagtata gttgggattt gaacatcata aacgaatttc 240  
gaagatgcat actccaattc cagcatttaa acctgtgcc aatcgcaactc tcagagtttt 300  
gaccgttacc ataacccccct tcagttgcag tgtgctatcc tattgccaaag cc 352

<210> 5622  
<211> 360  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073c12d1

<400> 5622

gaaaggaagg gcaaaaatta accacacgaa aaaccggaaa cgggatctaa ctttgaaata 60  
gccaccccg gaaaccctac aacggcactg atccccaatt tataagggcc aaggaaccgg 120  
ggcgttgaa acccagaagc caaacaatcc acaacggatt ttgacaaaag cccaaaccat 180  
gcccaaaaac aaccacaaac accctcggaa aaaaaagggg aaaacggcca aagaccaata 240  
acttaacagg gcccgccaa cccacctaaa ggaatgggac ccgtccaaa ggggtggggga 300  
accgggaaaa agcccatacc cggctttaa acctttggg gacccccccg gatgaaattc 360

<210> 5623  
<211> 543  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073d01a1

<400> 5623

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aatgcttgct agatcgggta ttgaaatcgg cttcagtgac aaaagaactt caagaaaagg 120  
atgttgaaac aaatgctctt gacaaacttg tgatgatggc ttatgagaaa tacatggcta 180  
gccgggggtcc tagctcatca ggtgggaaaa atgcaagcaa caaatcgcc aagcaagctg 240  
cattgggatt tgttaaaca acattggaac gatgccaaca atttgaagat acaggcaaga 300  
gctgcttcaa tgagcctttg tataaggata tgttccttgc tgcttcttcc cagctaagta 360  
ttgttcggca attagatggc atagaggctg aatccacaaa acctgtgtct tccttttctc 420  
tggaagcaag aactgcttcc atgggttcac agcagaaccc ttcacaatta agtcagatat 480

gaaaaatcat gatctcgaat catcagatat tctttctgct attaatgggt catctgaaca 540  
aac 543

<210> 5624  
<211> 556  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073d01d1

<400> 5624

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tataagagct acaaccagga tacagtgttt gctaacatac aatcactagg aatactaact 120  
tgtacctaga acaaaaagac ttacagtgg aagtcgtgaa cgtcaatact agcaaaatcc 180  
aaaacagttg gatctgtcat tagaaacagt ttggagaagg aagtctacca aagaatatat 240  
attaacctaa ttgagagcag gattagccat aaaaccatcc tacgtaacta gtcatttctt 300  
aaaggtactt tgtttccttt gtcattggta taatgaacag tactatacaa agaaagcagt 360  
ttcaaaccat catattcaag tctgaaaggt catccatggg aatttcaagg ccataaagt 420  
catcatgatc ttgcaatcca tcacctcaa tattcaacca tgaaccaaga tcagcacctt 480  
ggatcatcaag atcaccagga acaccaagca cattcattcc aggtagttgc aagttggaca 540  
tatcaatagg ttcatg 556

<210> 5625  
<211> 587  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073d02a1

<400> 5625

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gaaggactgg tacgatatca aggcccttc cgtctttcag gtcaagaatg ttggcaaaac 180  
cctcgtctct cgtaccagg gaaccaagat tgcttctgaa ggactcaaac atagagtgtt 240  
tgaggctctca ttggctgatc tccaaggaga tgaagaccat gccttcaaga agattcgttt 300

gagagctgag gatgttcaag ggaaaaatgt tctgacaaac ttttggggaa tggatttcac 360  
 aactgataag ttgaagtcct tggcgcgaa atggcaaact ttaattgaag ctcatgtgga 420  
 tgtcaagacc actgataatt atacgttgag gatgttctgc attggcttta ccaagaggcg 480  
 ttagtatcag gtgaagagga ccttgatgc acaatcaaag ccagtcagac agatcgcatg 540  
 aagatgagag agataatggt aaaccagca gctgcctgtg atttgaa 587

<210> 5626  
 <211> 459  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073d02d1

<400> 5626

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 tctaaagggc aaaacaaaac tgaaaaataa atttttggaa aagccccggg gattttaaac 180  
 aacccaaaat gccttttcag ccggatcaag cccaactcc ttaagggggt tccttagcca 240  
 aggggtttatt aaaggggctt tcccccttgg gcccaacatt ttttggggaa tccccatgaa 300  
 ccccatcag ttttccaga tcaaacttgg gggctttaa aatcttaact ttacgaataa 360  
 acccattttg gagggggtat ttgccaaagg gggcctcttt aaacccttt ccaatcattt 420  
 caggggtgaa cttggcccc aattttttta aaatacagg 459

<210> 5627  
 <211> 489  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073d03a1

<400> 5627

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 ccacggcgtg atcgccaata gcttctacga gctcgagccg gtttacgccg atttttaccg 180  
 gaaggagctc gggagaagag cgtggcattt gggaccgggt tgtttgagca atagggacgc 240

cgaggaaaaa gcatgcagag gaagagaagc tgctattgat gaacacgagt gtctgaagtg 300  
gctcgactca aaggaaccaa attcagttgt gtatttgtgt ttcggcagca tgacagcggt 360  
cttcgacgcg caactcaaag aaatcgcttt aggtatggag gcttcagggc agaatttcatt 420  
atgggctgtc aaataagggg tgaatgaaaa attggaatgg ttaccagaag ggtttgagga 480  
gagaattttt 489

<210> 5628  
<211> 552  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073d03d1

<400> 5628

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catcagcaat ttcccacaaa ccggcctaag ttacatgca tacatgacac aacaatcatc 120  
aacaggcacg cgacctcaaa ttcctctatc aatgagccga aatcgttgta agaagatcct 180  
ccttcttaca cagcacgctt tgccattcga gcaagctctt ttgctctggc cctcatttcc 240  
tctggctgct cttcaaccat gatccttctc acagcctttt taaccgggtc cttcttcaca 300  
gggtcccttt ccatcatccc aatgcacggt tgaacgccta cacttacccc aatcttaact 360  
atgtccgtca aaaacttagc attgtaaaat agctctgtcg acattggcca tgtcaccatt 420  
ggcacccttg cacacaccct cttcaatact gagttccacc cacaatgtgt cacaaaccct 480  
ccaacggatt catggtccaa aatcattact tggggtgccc aaccttgat gatcaaacc 540  
ttttcttgac ct 552

<210> 5629  
<211> 547  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073d04a1

<400> 5629

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gacaaaagaa gcaagattcc gaggagttaa caaggatatt gcatctacaa tatttgcagc 120

aatatgtttg atttgggtgt accgagtggc aaacatcccc acagttgcaa gtgggagatg 180  
gacttggatt agtgttatgg tgtcagagtt atgttttgga atatactgga tcatcactca 240  
atctgttcgt tggaaaatcg tatatcaaac gcctttcaaa cacaggctct taaaaagata 300  
tgatgaggag agtttaccag cagtggacat ttttgtgtgc acggctgacc caacacttga 360  
gccaccatgc atggtgatga atacggtatt atcagcaatg gcgtacaatt atcctgcgaa 420  
taaattgagt gtgtatctct ctgacgatgg aagctcagag ctcacattct atgctctctt 480  
aaaagcctcc atttctccaa acattgggta cctttctgta gaggatcaat gttgacctaa 540  
gtcacca 547

<210> 5630  
<211> 527  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220073d04d1  
<400> 5630

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caatgtgaag aaggcggtta catactccct ggccctcgtc tcttctctga actatttaat 120  
ccaagtccat aaaatggagc aaatcaatac tagctttcaa tttagaatca aacattgaaa 180  
ctaaattgac attgaaaaat aacctactcg tttctttcaa tataagatat ggcaaacca 240  
tgaataaaca ctaggcattg acgtaaccgc taagaaatgt ggagcagctt atgtatggga 300  
ggcacattca accttgtgag attcaaggac atgccttgtg gcttccatgg ctacctgtcc 360  
actgacatag tgctggcgac acacaggcat gtagacatca acaccaccaa tcagctcaat 420  
ctgcttatcc tgtgtcttcc tcagggtaaa gcaagcacgc tttccacaga tttcacatct 480  
ggcagttaac ttggttactg aatcacgcag gggaattata ttcagga 527

<210> 5631  
<211> 520  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220073d05a1  
<400> 5631



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 tcgccttcga atccagagcc tctctcggtt cctcactctt ctcacatcga gcgcaacgcc 120  
 aaaaaatcga atttcacgat ggaagagttg gagcagtgga aggaacaact ttctcacttc 180  
 gctaacctag ctttggatcg tcttctcgag gttcctccga atcagctcta cgcagctgct 240  
 gcaatcgtga ttttcacaac gctgcttctt ctctcaattc ggttggtcaa gcgtgcgaag 300  
 tcaaactcgt ttgtgttggc cgggctcagc gggagtggaa aaactgttat cttctatcag 360  
 cttagggatg gctctactca tcagggtact gttacatcaa tggagcctaa tgaaggcact 420  
 tttattcttc acaacgagaa aacaaggaag ggcaagataa aacctgttca tgttggtgat 480  
 gttcctgggc attctcggtc tcgacccaaa ctggatgagt 520

<210> 5632  
 <211> 325  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073d05d1

<400> 5632

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 acccaaaaat ttcaagctgg gaattacccc ccccgccata tttgcaagcc ttttccact 180  
 tatttgaagt ttttatttcc ctatgtccaa tgggctctaa tttccccgca aaattgattc 240  
 ccaaagcctt tggttatcaa ttttcacctt tggcctggaa tctaaactaa ggggccccca 300  
 acaccagaat cccccaatt ttcag 325

<210> 5633  
 <211> 248  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073d06a1

<400> 5633

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 tcatcgaacg ccaaagacac gagaattgca ctgactggcg gaagcgggtcc accactaaat 120

tggttaatgtc gagagggcga tgcgcctaga ctagatatta cgggtactgc tggtacgacc 180  
catttgagga aggtggcagc tttggcagat ttactggacc ggtgagagtg attgcttatg 240  
ataacaac 248

<210> 5634  
<211> 258  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073d06d1

<400> 5634

gttcgaaagg ctgttctctg atttataaga gctgcgggca agatacaaag cccgataaaa 60  
aggaatcact aggaaaatcc acaggcacgg aaaggcacca cgctggggaa agcaaccgtt 120  
aatgtacagc aatctggcga aacacaaaag caccggaagg cgggacaaac ctaacctgga 180  
caaagaggac cccctggccc ggcgcataaa aatgcaaata cacctatccc caaggggcac 240  
taattcccc cgaaaaag 258

<210> 5635  
<211> 347  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073d07a1

<400> 5635

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ttattgcac aaaccttgct tgctacatgc ctttacttct tggacaaccc tgtttgtatt 180  
cttattggct atagctcaat gtagttgcaa ctatatttgg aagcttttgc ctactcaacg 240  
tgaattttta tctgagcatg attgtattgt tttgtgatg actctgaatt acattgttgc 300  
ttgtctatat ggcttaattt ttgccactta tcaattggac tttactt 347

<210> 5636  
<211> 413  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073d07d1

<400> 5636

aaaaaaaaa aaaaaccttt ccatgattca cttaaaaatg ccttactaaa acaaactggt 60  
caagggatta atttccaatt ctacactttt tgcaagactt tccgcttaaa acttttccaa 120  
agacttcctt gatttcaagc cccaaacttt taatgcagtt tttttaaccc ataagcgttt 180  
taaaaaaatt cccctttttt tatggaatat aaaatccagc cctgcccaaa atcaattgaa 240  
cttgggcatt ccatggaaga atttcaagga atcttgcaaa tatttccagc ttggtccatt 300  
atcaggggtc ccaaataacg attccgaatc aaaagggagg ggccaaattc acctttttca 360  
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<210> 5637

<211> 391

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073d08d1

<400> 5637

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caagggataa attaccaatt ctacactttt tgcaagactt tccgcttaaa acttttccaa 120  
agacttcctt gatatcaagc cccaaacttt taatgcagtt tttttaacct ataagcgttt 180  
aaaaaaaatt ccccatTTTT tatgtaatat aaaatccaac catgcccaaa atcaattgaa 240  
cttgggcata ccatggaaga atttcaagta atcttgccaa tatttccagc ttggtccatt 300  
attaggggtc ccaaattacg attcccaatc agaaggaagg ggccaaattc acctttttca 360  
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<210> 5638

<211> 592

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073d09a1

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ttctcctttt gctctgttct cacttccttc ttctcgattc tccttcgca gcaaccgcg 120  
 tcgaatcccc aatcgcttct ttgcctcaa cccatcacc tggtcgcca ataatttctg 180  
 ttgcaccatt caaaatcgaa gtttgcaaac ggagccctcg ccgcctccct ccggcgagat 240  
 tcacgtcatt gtggggccca tggtcgccg aaaaaccaca tcgctccttc gtcggattca 300  
 gtcggaaacc accaacggca gaaatgtagc aataattaaa tcaagcaagg atacaagata 360  
 tggattagac tcaattgtta cacacgatgg tgcagaatta ccatgttggg cactggaaaa 420  
 cttatcttca ttcaagcaga agtttggaat tgatgcttat gagaagctgg atgtgattgg 480  
 tattgatgaa gctcaattct ctgatgacct ttatgaaatc tggcttcagc tgctgatcat 540  
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<210> 5639  
 <211> 167  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220073d09d1

<400> 5639

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 agctctaacc ttttgtgcca gttcacgcaa tttctgacat tcctcaaat tgtgtttatt 120  
 ttcttccttg agctgcatgt tactctcacg aagtaagttc atttctc 167

<210> 5640  
 <211> 461  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220073d10a1

<400> 5640

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 agtgcctact gactactcta tgggtgtcaa ccaatctcgt gaaaaaaga cgactcagat 120  
 gaatgatttg actgaagtca aacgtctaag tcttggaat gaaagggatg ccctaaaacc 180  
 caatcatcgt cgtgggcatg gtcaaggaca tgggcatggg catgggcatg ggcatggaca 240  
 tggacatgga catgggcatg ggcttgatca tgaagatcct tccgttatga aaaagcctgt 300

taagatgtcc gtgcctcaat ttggaggggtg ggaacacatg cccgcgggag tgcctactga 360  
ctactcgatg gggttcaacc aagcttgtga aagaatgatg actcaaatga atgaatcgac 420  
tgaagtcaaa cgtgtacgtc ttggcaatga aagggatgcc c 461

<210> 5641  
<211> 402  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073d10d1

<400> 5641

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gttcggggga aaaaaaagaa aattggggaa aaaagaatgg gaaaccaaag gccgggcaat 180  
tagaccattg gacccaacc ccccaaatcg gggccctatt tccaaggttt ttcccggtta 240  
aacccccggg ttttgaacct gggaaaaagg ggatggaagg gtttgggccc ccccgagccc 300  
gtggcccctc ccttttttcc ctataaacca ttaaagaaat cccctccctt tcagaaaaac 360  
cccctttata gggggcaaac ccccttgggc cccttggggg gg 402

<210> 5642  
<211> 551  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073d11a1

<400> 5642

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cgattaggtt ctctcttttt ctgaatcttc gctttcttct tcgttgtttt ttctttgtta 120  
tatcgatcat atgatgagaa aaaaactgca acaatatgat tggattcggt ccatgattcc 180  
tagtatttaa gtctctgatg attagttctg ctctccctct tcttttgatg tttgaaatta 240  
atttacaatt tctttccggt ttcatthttt taatttgttc tcgattthtt gggttagaga 300  
gtttgattag aaaaaatagc gaagagagat gatgattatt acattgggtc gtgtttctga 360  
atcacctga ccgacaacct ttaccaatth ctgatctcca atcgagata atthththth 420

atattttaatt tttaaatttc ttaatttttag cttaattttt gcgtggctct ggctcagtga 480  
tcttctgccca ttgttgcaagt atacgttatt ccgactcaat atgtgagtag agatatcatc 540  
atagatgaga g 551

<210> 5643  
<211> 456  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220073d11d1  
<400> 5643

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tttgtttttt tttttttttt tttttttttt tttttttttt tggggcccta aaaaaaacc 120  
cttttttaaa aaccctttgg gccccaaaaa aaaagggggg taaaaaaaat ttggggggaa 180  
aaaaaaaaaa aagggcccaa acggggaaaa acgggggcaa aaaccgggga aaaaaattta 240  
accccaaacc ttggaaaaaa gaaggggcca aaaggggggg attatttttg gcctccttcc 300  
cccccaaaaa aggggttaaa aaaggccttt aaaggggggg cctttcccca caaatattggg 360  
ggccgggagg gtaaagacac cccctcggg gggggggggg gaaaaagggc cctgggaaac 420  
ccccgggcgc ccaaaaaaaa ttgggggtgt ttcccc 456

<210> 5644  
<211> 556  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220073d12a1  
<400> 5644

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ctcggtggcc cactccctaa ttttccttct ctaccogatt tactctaacc accctacaca 120  
cttacttatg agagagagag agttcagtgc tattgtatag aatcaccacc ccattaccct 180  
gcatacacca tttaatgcat tgatttcac tgggtcagtc acaataacag aagaaaaaaa 240  
gaaaggaaaa aaccctctt tgatgatgga caccacttca tcccctgtgt cccttcaaac 300  
ccaaaaaacc accttccaag aacttgaga agcttctacc aagccatata agaaggcat 360

agtagcaacc ttaatgggag gaggtttatt caaagaagac aactactttg cgtcccttct 420  
gagatcctca gagaaaaaag cccttcatga gctgacaacc aagctcaaag cttcatttga 480  
agactctccc tetgatgcat ccatgtgggg aattcccctg cctggagggtg atgacatagc 540  
tgacgtcatt ctcttc 556

<210> 5645  
<211> 299  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073d12d1

<400> 5645

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caaaaagggg gacacaaaaa aaaaaaaacc ccaaaaaaaa aaacccccga aaaaaaaaaa 120  
cccaaaaaaa gggaccccag caaaaaaacc ccaaaaaaaa gggggacaaa aaaaagccgc 180  
ccaaaacctt ttccaaaaaa aagcggggca aaaaaccccc tttaaggggg caccacaaaa 240  
aaaagaggaa gcctataacc ccacaggaga aaggagacc cccagagacc ccggagagg 299

<210> 5646  
<211> 494  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073e01a1

<400> 5646

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aagaagggct cggaagaag aggaggcaca gagagcaaga gaagaggggtg aaagaaggcg 120  
gaaggagagg gatcataaat atggaaatag gaggcacgt cgaaggccgg atccccgtga 180  
tatggatgat taccatgatg aactttgaag actgcactaa gggtaggtgg caggtgcgta 240  
attacaacac taaaatgcat ctttgaagtt gcgaattgta ggaccaaagc tgcaattgca 300  
ctgacatgc cgagctgtac tgaactgtaa catctgaaat attagcgtca gtcattatgt 360  
gtaacttcat ttcttttcga ttattatgca acagctggtc tgcttctgct actgctactg 420  
tattcaaagg atggaagtta tactttctct attctgttac cgaaaggggg gataagaaag 480

aaattatcct ttag

494

<210> 5647  
<211> 497  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073e01d1

<400> 5647

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attccatcct ttgaatacag tagcagtagc agaagcagac cagctgttac ctaataatcg 120  
aaaagaaatg aagttaaaca taatgactga cgctaattt tcagatgtta cagttcagta 180  
cagctcggca tggtcagtg c aattgcagct ttggctctac aattcacaac ttcaaagatg 240  
catttttagtg ttgtaattac gcacctgcca cctaccctta gtgcagtctt caaagttcat 300  
catggtaatc atccatatca cggggatccg gccttcgacg atgccttcta tttccatatt 360  
tatgatccct ctgcttgcta cttctttcac cctcttctct tgctctctgt gcctcctctt 420  
cttaccgagc ccttttttct ttttctgctt cttcaaaagc ttctttttca gcctctctat 480  
tattagccat aaattca 497

<210> 5648  
<211> 545  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmfl02220073e02a1

<400> 5648

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ctctgagcct gggcatgcta aggtgtttgg tcatgttcgt aagctttcaa atgagagtgt 120  
tgaaagcgat ggaagctcaa tacgaggtag tgacatgtct aattttggga ttccaagtgc 180  
atctggtgat ggctctcatg accttcctgg atctgctttg gtttcaagag agacagatat 240  
tatgggccac acaaagtcga agtctactgg tgatactcaa ttagtccttc cactagatca 300  
acgcaataaa ttgaacagga ttctttcaac catgcagcga acgctaggca ctgcaaaaac 360  
tgatatggag gaccttatag ttagattaaa tcaagaaata gctgcaaagg attttctcgc 420



aacaaagctt aaggatttgg aagtagaact tgaaactacc aaacagaaaa ataaggagaa 480  
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 ggaac 545

<210> 5649  
 <211> 574  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmf102220073e02d1

<400> 5649

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 gttcagaaaa aaatgtggtg caaggctcgt atgtgtgtaa agtaaaaact cgtagtacia 120  
 gttgaaatac attaggggag ctacggcact cagtatatta actcacctat tggaaacggc 180  
 aaatgatcat ccaccgggat aagaaacagt gggctcttgg tcaaaagccg aagaacaata 240  
 tatatattag cacttaacat atattttctaa atacttgta gagtctccac cgaaggggaa 300  
 tcatcacttg ctgtcatatc caatttgaga gcctgccttg tgacgcgggt tgtctgtttt 360  
 ctcaatctaa cattatcgat gaacaaatct gctatgatct ttctcacttc atcatcacag 420  
 attacacat cttttatgtc attggtggtt ctatctacat tggaagccgc acttccgtag 480  
 tccttctcta agttttctac ctctgctagt aggatgtcca ttnggtcatc agatgtcggt 540  
 aactgattaa aagctcagtt gatgatgatg aatt 574

<210> 5650  
 <211> 299  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073e03a1

<400> 5650

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 ccgggccact aggacccga gcttactgac tcgaagccct ctcatgggga ttcggatcct 120  
 cgagactacc catgatgtac tcagctgcag gtgcacatt cagaatgcat gtcacgggcc 180  
 atggatgaca catgggaccc atttggttg caacttatgg cgcggtacct gctaggacga 240

catcaggtgg attgcctaac tggattacgg gagagcgatc taccgcttgg ccttcgcta 299

<210> 5651  
<211> 531  
<212> DNA  
<213> Glycine max

<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220073e04a1

<400> 5651

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caaatgatga ttcagtaagc aataatatct caacaaatca atcggaggaa tcagcgaatg 120  
ctcggaaaaga cgagatgcct agttctttca ggttttgggt gatattcttg tgggcatttt 180  
ctggagtagg tttcttggtt gttatttttg tgggtgattc aggtcataga agaagaggaa 240  
caaggttaaa acacggtaga aggagaagaa gcttgcatag aggattcatg gaaacgaata 300  
gccgtgaccg gcatagccgt ggtgtcgatg ttcctctgta gacagtgctc cttttctttt 360  
ttaatggtgt aaagctgatg gtcagaattt taagactttc atgcgaagat cacaaattga 420  
aggttaaaag gcatggaaac ttgagtgagc ctgtgtgaca tcanttatgc aaagcacgtt 480  
attctgaccc tcaaggagac ttccccattt tgatattgtc atgaacattt a 531

<210> 5652  
<211> 354  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073e04d1

<400> 5652

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ctatgtcgaa gtgccctagt acccaccgaa cgtcgagttc cataacctac caaacgcgtc 120  
taattttacg caacgtacag atgccgaaaa tgtatcaaag ccggcgcgga ttaataagaa 180  
cccatcggtg ctaaacadct tacagacact aatccttatt acatatggaa gtcacttaat 240  
agatactctg ctccaattgc agcccaagta tatacaacct gttgcttggc cacattcatt 300  
atgaagtgca tggcctaatt cacctgtgat atctaggcct atgccaagcc acac 354

<210> 5653  
<211> 526  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073e05a1

<400> 5653

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gcatcttggtg ttgtgtccct cttttaagct atttccttct cttaacacaa ttggttggtgc 180  
caattgccat agtcaccaac caattaacaa aggtatatat atcatcatat catcaccaaa 240  
tgaaaaatat tgggttggtt tttcttggtg tgggtggctac ttttggtgtg gcagccacag 300  
ctggttagctt ttaccaagac ttgaaataa cgtgggggtg tgagcgtgcc aaaatctatg 360  
agaatggaaa ccttctcaca ctctcccttg acagagcctc tggctctggc tttcgttcca 420  
aaaaagagta cttgttcgga aaaattgaca tgcagctcaa gcttggtgct ggcaactctg 480  
ctggaacaag tactgcctat ttattatctt ctctgggcct actcat 526

<210> 5654  
<211> 58  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073e05d1

<400> 5654

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<210> 5655  
<211> 577  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073e06a1

<400> 5655

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ctttccacag cctcaagccc cctctccgtc tccctccccc caacgccgcc gtctccgcag 120

ccgccttcgc cctcttctc cgccgcaact cgcagttccc ggactcctcc accgccttta 180  
tcgactctgc caccggccac cgctctctc acggcgagct cctccaccgc gccaaaaccc 240  
tagcctcgaa tctcgccaca atcctcaaac tcaccaaagg cgacacagcg ctcgttctct 300  
caccaaatat tctccaagtt cggatcctct gcttcgcgct tctttctctc ggcgtaggtcg 360  
tctccccgc gaacctctc tccacgcgct ccgagctcac gcgcttctc aacatcagca 420  
accctcaat tgtcttcaca gtaacctacg gtcgtgaaaa aacacgcgag tttcaagtga 480  
aaaccgtgct cctggactct cccgagttcg acacgctcac gaagtctcag attcacacaa 540  
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<210> 5656  
<211> 585  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220073e06d1  
<400> 5656

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tttcattaca tataaattct taaactgaac acacgcattg cttcttcttt ttttttttca 120  
tttgagcaa aagactaaat caaacaccac ttataaaacg aaaatgaagc atattacaac 180  
ctagagagcg ccagttttta gtccttctc agtatctttc ccgcagcatt cttgggtatg 240  
gaattaacaa atgctacacg ccttattttc ttgtacggtg aaacctgttt ggcaacaaaa 300  
tcaataactt ctgctgcgcc aagggaactt tgaggttgtc tcaccacaaa cgccatgggc 360  
acttggcctg ctacttcac agggatgga ataactgcag catcatttat ctctgaatga 420  
gataggagta actcttctag ctctgccgga gcaacctggt agcccttgta tttaatcaac 480  
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gtccttaacc acccatccac caaagttgct gaagtgcttt tgggt 585

<210> 5657  
<211> 464  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220073e07a1

<400> 5657

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cttcgccaaag aaccgtgaac tcgaagtgat cactccagg tgggccatgc tcggagcctt 120  
gggctgcgtc ttcccggagt tgctgtcccg caacggggtg aagttcggag aagccgtgtg 180  
gttcaaggcc ggggtcccaga tcttcagcga ggggtgggctc gactacttgg gcaacccaag 240  
cctgatccac gccagagca tcttcgccat ctgggccaca cacgttatcc taatgggtgc 300  
cgttgaaggt taccgtattg ctggtggccc cctctgtgag gtcactgacc caatctaccc 360  
aggtggcagc ttggacccat tgggccttgc tgatgacca gaggcttttg ctgagcttaa 420  
ggtgaaagaa ctcacgaacg gacgattggc catgttctct atgt 464

<210> 5658

<211> 360

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073e07d1

<400> 5658

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ctttccgggg accaaattgg gggcattagc ccaggcggtg ttgttgacag ggtcagcaag 180  
gggatcggcg aggttctcca atggaccctt tccggggaca atggcctgaa caaagaagcc 240  
aaaccttgag aacatggcca atcgtcggtt cttgaggtcc cttaccttaa gctcagcaaa 300  
agcctttggg gcatcaacaa ggcccaatgg gtcgaaactg ccacctgggt aaattgggtc 360

<210> 5659

<211> 296

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073e08a1

<400> 5659

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atggagacag gtacagtgtc cccggaggat atagactcag agggagagca acttgatgag 120

atatcagtc t t a t a g g g a t a t c t a t t g t g a a t t t c g c g t c t t c c a t t t t g g g t a c a g a c 180  
 a t c a g g g t t c t t a c a g a c a c c a g a c g a t a t c a c a t g e t t a a a g a t t c a t a a t t t c a g a t a 240  
 a c t g t t t t c t g t a t t t g a a a c t t a t a t a a t a a g a a g a a t g c t t g g g a t t g c t g a t t 296

<210> 5660  
 <211> 275  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073e08d1

<400> 5660

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 a g a a a t a g c t t c c a c g a c c a a t g t t a c g g t g a c g a g c a t a t g a t t a c c c c a t a a t a g g c 120  
 t t g a t g g a a t a t t g a a t c c t c a c a t g a t a a t g t c g g c a g a c a t g t a c c t c t g c t g g g g g a 180  
 a a g a a c g a g g c c a a t t t g a a c t c a c t a t t t g g c t t t a a g g c c t t g a c t t t c g a g g g c a t g 240  
 a a c g t g t g g t g t t g a g c t g t c g c g a t c t g a a t t c t 275

<210> 5661  
 <211> 354  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073e09a1

<400> 5661

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 t c a g g c t t a t t g a a c t g c g a a g c a a t a t g g c t g c c a t a t c t a t a a a t g a c t a c c g a g c t t 120  
 c t t a a g g a t t a t a t a t c g g c t a a a t c t a g c g t c g a t a g g c t g g t a g t a t c g a a a c t g g c t 180  
 c t g a t t c a g a g a c a g g a c g a g t a t g a a t g g t t a g c a a a g a c a c t t a t g g a g a g t c a t g g a 240  
 c a a a g a g c t a c t t t t g g a t g a a g g g c a c t t c a a c g c c t g a t c t a a c a t a t g c c t t g g a t t 300  
 a a c c a c a t g g a a t a a c c a g c c t g a a t a t c t t g c g a t t a c a t t a a a a c c t g c a t a 354

<210> 5662  
 <211> 498  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073e09d1

<400> 5662

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ttcctgctga acccaggttg tgcattggtga agtttctgct gttggagctg ggatgacaat 120  
ggagttaaag gggatgatgg cgttataggt gaaagaggca cttgctgagg agaattttgt 180  
ggttgaacct gagaactgtt ctgcagtggg gatgatgaga tgggaagttg agacttagcc 240  
tggacatgtg gcattaatgc atttgatgca gcaagctgct gctggtgctg cagatatcgt 300  
tgctgcagtt gtctttcctt tgccaaccga acagcatagg cttgttgctg tgaattagt 360  
gcatgactag gaccttgaag atgaggactg ctgagatggg actgctgctg ggggagttgg 420  
tgtggcttgt gggcatgttc tgagtaaggc tgaacagggt gtgttgctctg attgctaagg 480  
cagaactcgg ccacacag 498

<210> 5663

<211> 545

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073e10a1

<400> 5663

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agctgcagca acttttcttg ttcaataccc atcaaagca aatacaaaga cactctcttt 120  
ttttaattac tactgtgata tgttcctttc ttcttctga atctgaccaa ccagtaggac 180  
tccttcaaag ggattttgag tattgtttga attgctggag acctgagagt gaaaactaac 240  
tccacaatcc atggataaag atgctagggt ggaagagact gttgatttgc gaaccaatgt 300  
ggagttggtg agatcagtct ctgataagca tcatgatctt ttaaggccat ctgctcggaa 360  
ctattcaaga ggacaatcaa cagatacaac tggccgtgga aagggaaagt atgccttaat 420  
tagagacca gaggacttcc aaatgggagt ttatgataag cccttccatg ttttggatgt 480  
ggaatcggat ggttctcatt tctttctgga tttctatgcc ctctatgtg gttctatgct 540  
acaat 545

<210> 5664

<211> 356  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073e10d1

<400> 5664

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atgcgcgaga aacttaaca gcaagtttta caagcgaaat ttgcttcttt aacacgtaac 120  
tgcagacgct gaacctttca actgccccaa attcataact taaccattcc taggtggatc 180  
aaggaatcat aatgcttcta ttaagcttta ttggaaacca gggaaaggtc tgtgccaacc 240  
attgagcccc taaatgggga taccgttggg aattcctctg aaagggaatc cctcctcact 300  
agaagggtaa agccaagggt caggcatttt agcccgcca ctgggggtct tcaacg 356

<210> 5665  
<211> 298  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073e11a1

<400> 5665

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ctaattcgca tcttcaattt gactaacaga cccatatatt tcatcataac atagcatcaa 120  
taatggtctt atattggtag acgtggaccg aatggacatg gaccggttca aggtctcgta 180  
gagcgacgcg gaagtcgatg acttggataa gctcgaggag cggcacgggc ccatgcactg 240  
gccgctcatg atccggtaga ttgtgggccg gactgggaag tagcgcaggc tactgggg 298

<210> 5666  
<211> 327  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073e11d1

<400> 5666

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aactcacaac tttcttcagt ctcaaccccc ctggtatgtt ggagccactt aaagtctagc 120



actccctggg ccctggggga ccccaaggcg gatatatcc cgggagccat aaggcacggc 180  
 tggggcattc aatggatcct ccatacctg gtagcccagg tttggataca catctgcatc 240  
 ataccgacca agatccgaac cgaggtaatg ttctgtgccc ttaaacgcag tatcaggggc 300  
 gaagcattac gacgaacccg tgaatac 327

<210> 5667  
 <211> 494  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220073e12a1  
 <400> 5667

aggagaagtt caagcaggag atccagagcc tccttgatgg caacttcggc agccacgcgc 60  
 gccaccgcac cttcgtctcc tggcgccgct tcatccacca cgaccgcggc agcgccggag 120  
 tcaccgtcgc caaactcccg gcgactatcc ggtcgccgct cttctaccgc tcctggctcg 180  
 acttccggaa ggtcctccac gactggttcc ggaagcgacg attccaaccc ggtatcatgt 240  
 ccgggttgac tcggtcaatt aagcttccaa ttgattcaca caacaacaac aacaaactac 300  
 aaaccaataa caaaaacaaa tactcttctt gtgccgtagt tggaaacagc ggaattttgt 360  
 tgaatagaga ctatggtagt gaaattgatt cccatgagtt tgtgataagg ttgaacaatg 420  
 ctagagttga tcactctgag accaagggtg gaaaaaaaaac tagcatttca ttcatgaata 480  
 gtaacatctt gcat 494

<210> 5668  
 <211> 486  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220073e12d1  
 <400> 5668

gatggagtca aagaactgta ttgatctaac caacaaaatt tacacttggt gttgccttga 60  
 ggcttcatgt tggacagttc aacacaaaca acaaaaacga atcttgaatc agtatcttgc 120  
 tttccactat ctgtgcattt cacaagtatt acaataacag aacaacaatt cacagaggcc 180  
 cttcaccacc acttgcagca gcagcagcag ttcagcacc atcattgata catgacaaca 240

ggaggaacct taaacctatc ctcaagaaag ggtataggcc ttttcccatc cacaagggtcc 300  
 ctataaaacg cataactcagc ctcatagtca tgcaagtga gctcagcctt ctgggttagtg 360  
 tggtaatggt gcttagcaga agtcgatttc ccaaacccaa aaatgctaac cctatcacia 420  
 atcccccagg ccagcatcac agcctgcac cctgaagagt agtgaaaaag agaaccatca 480  
 tgagcc 486

<210> 5669  
 <211> 532  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220073f01a1

<400> 5669

ctcttgact ctgtttatc acagccacat ttgaagcacg tctctcttct cttctcttct 60  
 cttatctata aaagaagaaa caaaggcacc tcatccacca aaacagagct agtttagtta 120  
 tctactcttt tctgcatggt tgttctctca acgactcctc cgcgaaagag tattattcaa 180  
 tatttttggtt ggggtgaatc cgggggttga agcgttgag acatcacggc tattctaaga 240  
 gtgtctcgct cctcattca tgtccgatct gtacgacgga ggacgggtag ttgcgtaact 300  
 gccgttaacc cttcgccgca cgggtggcgt ggtgctttgc cttctgaagg tggtagccct 360  
 tcagacttgc tcttactcgc tgggggtggt ttcttctagt ttcttctactc ttttcattac 420  
 ctttagcctg cataggttta aatatgaaca aaaaacagcg actttgtgac taggtaagat 480  
 caccgtttct ttctcttctt cttcttcttc ttctatacta ctactactac ta 532

<210> 5670  
 <211> 558  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220073f01d1

<400> 5670

aacagataac tgaatttatt atttctcaga gtcaagtcaa gcattatgat acatcatacc 60  
 ccaaaacacc aacaacagta ctcagggtgag cagttattac atcgacttt cacatgaacg 120  
 cggtataaaa ggcagataaa agcaaataca tacaacacag gacctaagg ctcaagcaca 180

gcacaatact atgtgactta aacggtgaca caattcagca attattctta aagcactacg 240  
gatttgctga atttggtcat aattttagag ccttgtagt gtagaatcac acattcttgt 300  
gaaccagcta ccaccacagt aggggtgttcg cttgtgctga ctgcatcaac ttctttgaca 360  
ctttcaacgt tgacatctc caattcacca cagccaatgg cttcaaaaat aagatcattg 420  
acttcttgaa acctctcttg agagagggac acctctgcaa gaagccttca agcattgcct 480  
tcagatgcct catcataatc cttcttactc tttagaacca tgtgcccact aatttccac 540  
acagcatgat tcacttgg 558

<210> 5671  
<211> 478  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220073f02a1  
<400> 5671

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aactgtcggc tcgagggcta ccaagacact ctatacacc aagcccacag acaattctac 120  
aggagctgca tcgttacagg aacaatcgat ttcattcttg gcgacgcagc tgtcgtgttc 180  
cagaactgca tcatggtagt taggaagcca ttggaaaacc agcagaacat ggtgactgct 240  
caaggagag tcgacaagca acaagtcact ggaattgtgc tgcagaaatg cacaatcaag 300  
gctgatgatt cactgggtcc agagaaggac aagatcagga gctaccttgg gaggccgtgg 360  
aaggagttct cgagaacaat tgtgatggaa tcggaaatag gtgacttcat tcaccccgat 420  
ggatggacag cttgggaggg agactttgct ctcaagacat tgtactatgc tgagtatg 478

<210> 5672  
<211> 433  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220073f02d1  
<400> 5672

ggcaatcaag gaaaatttta ttgacatctc caagttcact acagactcaa cctgttttta 60  
tcaacaagaa aaggatcttc tatttacctt aacatttggg gacccattc tttgcaagga 120

tttttcacc cactgcagtt cgggccagat tcccatttac gattaaatgg ttttaaaaaa 180  
 tttccgggaa aagaaagaat gaaaaatacc attcattaaa atgagcaaga ccctcaagtt 240  
 taatttccgg ggggcctaaa taacatgtag caacagcagc tcaaaggctt aagccagaac 300  
 ccaagtggta tgaaattcta agcaaagggg cttaattgga caaaccttgg gcggcaggca 360  
 cccccctgtt ctggagccct gtgcctttcc agaaagatcc cacagtgaac tgggtagccc 420  
 caccctggt aat 433

<210> 5673  
 <211> 542  
 <212> DNA  
 <213> Glycine max

<223> unsure at all n locations  
 <223> Clone ID: jC-gmfl02220073f03a1

<400> 5673  
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 ccaggaaagt agtttaaaaa ctttgaaata taaaattacc tagaatagtg gagacaatcg 120  
 atatcttata ccatttgtgg tcttattatg cttaaattgc cttgaaggag ccttgacaaa 180  
 tggactgcaa ataaaaaagt tttattgtct ttctatccgt tattccattg tttagtcttt 240  
 ataacgtcac atgctacttt ttagatgaaa gtacaaaaaa aaaagtaaaa aagcttcact 300  
 agtggaatca ctgatgtgaa aactttcgct aagaatgtct atttttttta ttggcttttc 360  
 atctaggatt atcaaatttc ctatctagat tggcttatgg ctctgtgtgc tctaatttca 420  
 tatgctcatc tgatcttcac anaaatagc tcaactgacat tgttcacgat gatttaatag 480  
 aggcgcatat attgatatct tttattttct ggcactggta tggattttga caggatcatgg 540  
 ca 542

<210> 5674  
 <211> 511  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmfl02220073f03d1

<400> 5674  
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atgtcaaata gttatgggaa aaaaatgttt ttctagatag tacataaccc aagcgtgaac 120  
 tgagccgtca cttgtcacat aaattcggct atttcttcat taagaaacct acaaacaata 180  
 cgctggaaac gtccaggaga tagaacttgt taggatcttg tattctgcta tatgtgtgac 240  
 cctttaatgt caaaactatt gtatagaata agctcgtatc acttccacca ctgggtgcttg 300  
 acacattgga cactttcttc tactttggag caaatcatta gcacattttg aacatgtgca 360  
 catgtgcccc catctgtaca acaaagaatc aatattgctt tcgcagcata tacagcaaag 420  
 tcctttcctc acacattccc atttagattt atctctgttg aaacaccgtc atgtattcct 480  
 gatgaaccag ttgagcgatt tagggctgca g 511

<210> 5675  
 <211> 464  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220073f04a1  
 <400> 5675

gttcgatata ttttctgcc aattttgggt attctagtta ttaaaggagc aacacagttg 60  
 ggtttgggtgc aaccagatcc cttatatcag tttgtgcttc tccttcaata tgcacttcca 120  
 ccagcaatgg ctataggcac aatcgcgcaa ttgtttggag ctgggtgaagg tgaatgttct 180  
 gttatcatgc tatggacata tgctttggcc tcagttgcag tcaacttttg gacaacttac 240  
 ttcatgtggc ttgtggctta attttgtatt cattgctatc tatgggttatt atttatttat 300  
 ttttaaattt tgccttataa gtatctcttt tcagccaggg gtaggaactg cctacactat 360  
 ctgtagcttt atacaaactt cctcaaagg atgaaataga atatatgggg ctactcaaac 420  
 attaattact tttcaataaa tgatataaat ggtttactat gtgt 464

<210> 5676  
 <211> 377  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220073f04d1  
 <400> 5676

attcaaaaac caggaggaaa tagtaacagt ttaacccaaa accccataaa aattcaggga 60

accgggcccc gaaataatta aaaaggcaaa aaccgatgaa ttcaaataaa taacccgaag 120  
aaggcccggg ctttttttta accaaagaag gggaaagaaa tgaataaaca aaaaaatggg 180  
gtttccatgg caaccagggg gggggggggg atagcccctg ggatctggcc cgtttaagg 240  
ggggagcccc gaaaactttg acccctttcc accgtgtttt tggacaagac cctgtttttc 300  
cgggggccgg aaaatcccca tttggggggg ggaaaaaac cggggggttc aagcctagg 360  
aggggaaaac caccggg 377

<210> 5677  
<211> 167  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmfl02220073f05a1  
<400> 5677

gagaaatgaa cttacttcgt gagagtaaca tgcagctcag ggaagaaaat aaacacaatt 60  
ttgaggaatg tcagaaattg cgtgaactgg cacaaaaggt tagagctgag acagagaacc 120  
tagagaatct cctgaaggaa agagaaatta agcttgatgg ccatacg 167

<210> 5678  
<211> 518  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmfl02220073f05d1  
<400> 5678

gcgcaccttt attgcttgat attcagagtc tttcactgat ggcaacttcg gcagccacgc 60  
gcgccaccgc accttcgtct cctggcgccg cttcatccac cagcaccgcg gcagcgccgg 120  
agtcaccgcc gccaaactac cggggactat tcggtcgccg ctcttctacc gtcctgggt 180  
cgacttcggg aaggctctcc acgactgggt ccggaagcga cgattccaac ccggtatcat 240  
gtccgggttg actcgggtcaa ttaagcttcc aattgattca cacaacaaca acaaaaact 300  
acataccaat aaaaaaaca aatactcttc ctgtgccgta gttggaaaca gcggaattcc 360  
gttgaataga gactatggta gtgaaattga gtcccatgag tttgtgacta ggtcgaacaa 420  
tgctagagtt gatcactttg agaccaatgt tggaaaaaaa actagcattt cattcatgaa 480

tagttacatc ttgcatttgt gtgctagcag gggagggt

518

<210> 5679

<211> 513

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073f06a1

<400> 5679

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ttcactagcc tcttctgcat tctgtgcctt tccacggagg ccagtggatg ttccattcgg 120  
cagaaactac gttcccactt gggcttttga tcacatcaaa tacttcaatg gaggttctga 180  
gattcaactt catcttgaca agtacactgg tactggcttc cagtccaaag ggtcatactt 240  
gtttggtcac ttcagcatga acataacgat ggttcctggc gattcagctg gcacagtcac 300  
tgctttctat gtatcttctc aaaatgcgga gcacgatgag atagattttg agttcttggg 360  
gaacagaaca ggacaacctt acattttgca gacaaatgtg ttcaccggat gcaaggggtga 420  
cagatagcaa agaatctttc tctgggtctga tccaacaaaa gcctaccaca gatactctgt 480  
gcttgtgcac atgtatcaaa ttgtgttctt aga 513

<210> 5680

<211> 547

<212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220073f06d1

<400> 5680

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tcaactcatca attacacagc tcaaacaata caatgataat aaataatggt aggaataaag 120  
tatatggtaa atgatgaatc aataatacaa taagaaactt atggtagcaa ccataaacat 180  
agtactacat gtgaatttaa atgtcacggg ttcttctaca ttcagggtga agctgagggt 240  
agcggcttct gtcagtgcag tagttgtaga tgggtgtattt cctgcgcacc cacctgagcc 300  
atctccattg agaagcatca agatcatgat actgtgcttg atcccaccac ctcttgcctt 360

gtgtagcaca gaactttgca ttcactgaag cttcacaccc atcaacgtgg aaccctttgt 420  
 attctgctat gaaggggtgct ttggaccaat ctgttttctc caaaccaccc cttgtggccc 480  
 agtcatcagc attccacaag ctgtngtaca cccttcatgg gttggtcaaa ggggaacttc 540  
 actccca 547

<210> 5681  
 <211> 592  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073f07a1

<400> 5681

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 atctcgttcc ctgaatactg attttgagct ttccctgat ttttttaggg aaacaaatta 180  
 ttgccccttc cttttttcca atcatctgca gtgaaaaaa aaaaaaaac tatatctgaa 240  
 gtttattggg gatcgggtat tgggaaatgc ctcgagactt gtcacgatcc cgatcgcta 300  
 cctataggcg gaggcattca ccatctcctg tgggacacag gtatagcagg aggagcagaa 360  
 gagacagaag cagatctcct tattcgtcct actgttacag caggcgaaaa agtcgttcta 420  
 tttcaccaag aggtcacaga agtccttcta caactccaag acgtggtaga agccgttctc 480  
 catctggcta acgatacaga agacatagaa gtaggagttc ctcatctgct cctactcgtg 540  
 aatcttacag tccaagtctt gtgtcagtag agcacaaaag tgccactgaa aa 592

<210> 5682  
 <211> 215  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073f07d1

<400> 5682

gttctaaggc ttttatttta atttattatc tcaatataaa taaacaaaac caaacaaca 60  
 aacaataaca gaacccta acaaaaaatc cacacaaaat cgaccttcg cccaacagtc 120  
 attaaaaccg actcgccaga aacgtcaaac taaaaaaca aaaaagaaca cctacaaaac 180



aaccacagca caaacaccaa agacaagaac aacac

215

<210> 5683  
<211> 473  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmfl02220073f08a1  
  
<400> 5683

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ggaaataatt caaggggaga atggcctggg gaaactgagc aggaaagggt gagtgccata 120  
agggagtggg tacagatgag cagccagcag agaggcgttt cttctgggga aagtagggaa 180  
gaacaatctt ctgaaattgg taccocaaatc gaatgcgttc gtgatggatt tgttggttaat 240  
cagaatgagg gccaacacca aactgagcat acacggcggg gaatccgtaa attacgtgggt 300  
cgacaggtgt ttcttgatat gcttaagaaa gctgagatgg aaaggcaaag agaagttcaa 360  
gaattgttga accatcgagt tgtatctcat tttcccatc gcaatcgcat acaggccttg 420  
cttagaggca gggtctcgag aaatgacaga tcgattgata attacacgtc cac 473

<210> 5684  
<211> 471  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmfl02220073f08d1  
  
<400> 5684

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acccatgtaa ttacagaccc atattacaga ctgaaaccta aaacctatgt aattacagac 120  
ccatattagt attcaaccta gaaaacatat acacaggcaa aacccaaacc aatcccacta 180  
aataattaca attctaaagt tgtaagtggc agtccaaatg taaaccaga agaaaacacc 240  
taagaatggt tagcactacc ctttagctat ctccctactg gcctactctt cttttgccta 300  
atggataaac agattccaac aacacacaga taccacccta cagctaatacc ttgttgacac 360  
aatcggtggt acagtcaact gtaatttaat actacaggaa acctaaagag aacaatgttc 420  
atgaatcacc accagcctca gcgaatggat gattatgttg tcgtacaaac t 471

<210> 5685  
 <211> 518  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073f09a1

<400> 5685

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 gggagtgagg cagaggccgt gggggaaatg ggcggcagag attcgcgatc ctcacaaagc 180  
 ggcgagagtg tggcttggga cattcgacac tgccgaggct gcggccagag cctacgatga 240  
 agccgcattg aggttcagag gtaacagagc aaaacttaat ttccccgaaa acgttgtacc 300  
 ggttccacct ccttctccgg ttcccgattt accggcaagt gcggtagccg gttccgattc 360  
 catttccggt tccggttcag tgggtggcagg tttttcgccg acgctgatgc atggaggcgc 420  
 cgttcagggc tcctctgctt ttctgagaga ttattggggg tattctcagc tgctgaggag 480  
 tacaggggac ttccatggac tcaccagtgg ttctttga 518

<210> 5686  
 <211> 332  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073f09d1

<400> 5686

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 cccggccttt aaaaagcttg atttgcaa atgaaaggggcc cggcaaaatg ctaatggggc 120  
 caaaacaatg ggcttggggc taaccgaaaa tgggatgcc cttttatcac tcccaatgaa 180  
 aagggcccca taccgaggga aactggtctt aacccccaat gaaccaggg gaatctggat 240  
 catcaattgg gtaaagctga attccaaatt taaaaccctc ataaaccctt tgattcccc 300  
 aaaaagaccc acaagggtta acaatgcccc tg 332

<210> 5687  
 <211> 544  
 <212> DNA

<213> Glycine max

<223> unsure at all n locations

<223> Clone ID: jC-gmf102220073f10a1

<400> 5687

taaggaaaat gattctgagg actggcttga catagttgca acagtagcgt ggcaggctgc 60  
taactttgtg agaccagata ccagcaaagg tggcagtatg gatccagggtg attatgtgaa 120  
gggtcaaagt gtggcatctg gaagcccaag tgagagcacc cttgtcaaag gagtagtttg 180  
cacaaaaaat attaagcaca agcgcgatgac ctctcaatac agaaagccta gactactcct 240  
tttaggtgga gctctggaat atcagaaagt tccaaatcaa ttggcttctt ttgatacatt 300  
gttacagcag gaaaatgatc atctgaagat gattatctcg aaaattgagg ctcttcgacc 360  
aaatgttttg ctggtagaaa aaagtgtagc ttcatgtgcg caggaatatt tgctggcaaa 420  
ggaaatcttc ttggtgttga aatgttaaag gcctttgctg gagcgtatag ctcggtgcac 480  
tggcgctctt ggcactccat aagtggattg gttatctaaa gcacgattgg ngcactgtga 540  
gttg 544

<210> 5688

<211> 426

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073f10d1

<400> 5688

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cccggccttt aaaaagccag attagccaaa gaaaggggcc cggcaacatg ccaatggggc 120  
ccaaacaagg ggcctggggc taaccgaaaa ggggttgcca cctttatcac tcccaaagaa 180  
aaggggccca taccggggga aaccgggtcat aacccccag gaaccccggy gaaaccggct 240  
taacaatggg cgaaagcgga attccaaatt taaaaccctc aaaaaccctt tgattcccc 300  
aaaaagaccc acaggggtta acaatgcccc cggggctaac aggggtaaca tggtcgaaaa 360  
gcccccaat tcaaggagcc cttggccaaa ccccttttgg gcatccccag gaacccctt 420  
ttgggg 426

<210> 5689  
 <211> 524  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073f11a1

<400> 5689

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 ccctcaacct ccgacacccc tctcaacggg caccttctcc gccgccgcac gcgcaccctt 120  
 cgccgccgtc acgcctccgc gcccgagaac gctaaatccg aaaccgcac tctccctctc 180  
 tgccccaata acaacaacag cacccaataa tgcaatccct ccgaagaagg tcttggttcc 240  
 catcggtatt ggcaccgaag aaatggaagc cgttatcatg attcacgtcc tgccgccgcg 300  
 cggcgccgac gtcaccgttg cctccgtgga gccgcagctc caagtagaag ccgtcggagg 360  
 caccaaactg gtcgccgata ccgacatctt cgcggtgtcc gatcaagttt tcgatctcgc 420  
 tgctttgccc tgacagggag ggatgcctgg ctctgctaga ctacgggatt gcgatgtgct 480  
 gcggaaaatc acgtgcagac aagctgaggg aaacaggctc tatg 524

<210> 5690  
 <211> 475  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073f11d1

<400> 5690

caacaaaaat tcgacatgat tttttttttt ggaaagcatt ctgtgataca agatgatatt 60  
 tggctaatta taattacatt atgacatatt gcgttttgga ctttttctta catcctatca 120  
 ggggaagttt ggtttttata ttagaaagtt caatctattg ttaactagag tctacagtgt 180  
 gttaactatg agaggatcca ttctctaaat gatgaaaatc atcaagttcc tgtctcagtc 240  
 aatagcaatg gcattcccag gtcgacatcc cctccagaaa tcaaactcag aagattgatt 300  
 gttaccatcc aagtgtgtga aacgaatgcc aaaaggggat atgaatcgat acagagctaa 360  
 tcacatgagt tcaagttggt agattttgcc aagatattga attagaagac tgcaacttat 420  
 cttttccgaa gtgattggag gcaaaataaa tcataatgat aatatggagc tgctg 475

<210> 5691  
 <211> 503  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073f12a1

<400> 5691

tgaacacatt gttgctggtg catgagagct tcatcttgag atctgtttga aggacttgca 60  
 ggatgatttc atgggtggag ctgagattat caaatctgac cctgttgtgt cattcagga 120  
 gactgttttg gagagatcat gccgcaccgt gatgagcaaa tcaccaaca agcacaaccg 180  
 tctgtacatg gaagcaagac cattggagga aggtcttgcg gaggccattg atgatggcaa 240  
 gattggacca agggatgacc ccaaggttcg ttccaagatc ttgtctgaag agttcggttg 300  
 ggacaaggat cttgccaaga aaatctggtg ctttggccct gagacccttg gaccaacat 360  
 ggtggttgat atgtgcaagg gagtccagta tttgaatgaa atcaaggatt ctgtggttgc 420  
 tggattccag tgggcattaa aagaagggtgc tttggctgaa gataacatga gagccatctg 480  
 cttttgagta tgtgatgttg tgc 503

<210> 5692  
 <211> 543  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073f12d1

<400> 5692

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 aatcctatta gagcaaaaat acatcgatgc aaggaccaa taacagcatt acaacattca 120  
 cgggcaaaac cacaacaaa actaacagaa attaaatcta aagtagcatt gttcacaaga 180  
 gaaaataaat tcgactaagt tcaaagtaaa ataattcatg aaacaaattt aaagcttgct 240  
 ttcaaactcg gagagaggag tcatctgttc cttcaagccc ttcctcttgc gaatgtcagt 300  
 gacaagctgt gcagcttggtg atccagcctc caatgggtca gaagacatca tgtcccagtg 360  
 atcaaacaca cattgtggga aggcctggcc tgatgttgca gccctcaatg tgctcgagaa 420  
 accaaaggac tcgatgacag ggaggtatgc cttgatgttg tatagtgggg tacctggcct 480  
 ctgcatttcc tcgaacacgt gtccacgctt ctggttaaga aactgtaga ttccaccaag 540

agc

543

<210> 5693  
<211> 534  
<212> DNA  
<213> Glycine max  
  
<223> Clone ID: jC-gmf102220073g01a1  
  
<400> 5693

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acctctgcag agaagttaac atataggagt gagaggagg gagagagaag gaaagcttgg 120  
tagcgatggg gaaggagcaa gttcaggtgc tgaatgccct ggacgtggca aagacacaat 180  
ggtatcattt cacagcaatc atcattgctg gaatgggctt cttcactgat gcttatgatc 240  
tgttctgtat atcactagtc acaaagctac ttggtcgcac ttactaccac gttgatgggg 300  
ctgcaaagcc tggttcattg cctcccaatg tgtcagctgc agctaattgg gtagcttatg 360  
ctggaacact ttcagggcaa ctcttctttg gctggctcgg cgacaaaatg ggccgaaaaa 420  
aggtctatgg catgaccctt gcgcttatgg gtatagcctt cattgctttc ggtctatcct 480  
tcggacacga tgccaagact gtgatgacac ctttatgcta ctttcgcttc tggc 534

<210> 5694  
<211> 592  
<212> DNA  
<213> Glycine max  
  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220073g01d1  
  
<400> 5694

ataggaagaa ctacacattc caatatctat tttctcaaaa ttcaaagaac aagcagtacc 60  
tcaggtccct atcattacaa caagatagag cagaaccaa tagaaaaaga aataatcaaa 120  
cgggaaagga aagctttggc aacaattccc tagccgaatt aaggcacggc tttattctag 180  
taacagatca ctaataaact agagaaagac actgaattat tctgttgcca ttatttttac 240  
accttgggtct cctcttcttg ctctcccgaa atctcctcca aggatctacc cttggcctca 300  
ggcaccaaga aagtgaacat gaagcctaaa atgttaatca cacccaacac aagcagtga 360

ttcctcacac caatacctgc aggggtaccct gcattctgctt tgctcgggtc ctgattctgt 420  
gccaaatata aaaacccgaa tgcaccaacc atagccccga gctttccaga tgctgaagat 480  
attccatggc aagtggatct aaatctagct gggaaaatct ccgtccgcac aacatatgtg 540  
gtggcattag gcccaaagtt ngcaaagaag aatgtgagag agtaaatgac ca 592

<210> 5695  
<211> 532  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073g02a1

<400> 5695

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aacaggcaaa ctaacataga ctccagaaat cataccttcc aggaatata caagaaccat 120  
gacctgtaaa aattataata caataaatat cagttatatt aaaatgctaa gtaattataa 180  
atagaaaatt acttagcatt ttaatataac tgatatttat tgtattataa tgctaagtaa 240  
ttttaaatag aaaattcatt atgcaagacc tattttaatg tataacaaat ctgagccaat 300  
agaaaatgga caagaaagaa aaaagctgca aaatttgaag agattttttc atactgacta 360  
attaattatg tcaaaaggat gctaaggaaa tgaaattcaa aaagtgttca tgtaacattt 420  
caaaatacat taatataatc atccataatt ttaacaaata tacttctgaa acaaactgat 480  
aagccagatt tgaataccac taatctcata cttaacgtca caggatcatt tt 532

<210> 5696  
<211> 508  
<212> DNA  
<213> Glycine max

<223> Clone ID: jC-gmf102220073g02d1

<400> 5696

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tatactcat ttttcttgta aataactcaa taccactaag tctcccggtg taaaaatgaa 120  
agtccttcat tcataggctc cttttttttc aacagatgct tttattggtg tcaacattgg 180  
ttcagatata tctgacatgc ccggtccaac agagattggt gctcttctga aggctcaaag 240

tatccaacat gtcagactct atgatgctga ccaagcctta cttcttgacac ttgccaacac 300  
 aggaattcgt gtaactgttt ctgttcccaa tgaccagcta cttggcattg gtcagtccaa 360  
 tgccactgca gcaaactggg ttactcgaaa tgtcatagct catgtccctg ctaccaacat 420  
 cactgccata tgtgttgat ctgaggctct aactaccctc ccaaatgcag cccctattct 480  
 agtctctgcc ataaatttca ttcactct 508

<210> 5697  
 <211> 554  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220073g03a1  
 <400> 5697

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 taacctctc ctttctctc cgccagatct catctcgc gccgccgcc cgcgccgc 120  
 tgccgccgaa tttctctcg tegtgtgtc tccacctct actctcgtg aagcttatta 180  
 aggaccgaca gcatgtgcc gcaaaattct ccggtacacc atgccggtga agaagaaatt 240  
 gcagctgatg agagtctttt aatttattgc aagcctgttg aactgtacaa tattctctac 300  
 cgccgcgctc ttcaaaatcc ttcttttctt aggagatgtt tgctttataa aataagagca 360  
 aggcgtaaaa ggaagttgag agcaggaatt gtgattttca attataggga tctactaac 420  
 attcttcgga aaactgaagt gaccgaagac tttcttgct cgttttgctt gatgcagtgt 480  
 ggcagcttta ggttactgga gattaccaag cagtgaatgt ctccgtgaaa attaatatat 540  
 tgagatcaga gaat 554

<210> 5698  
 <211> 425  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220073g03d1  
 <400> 5698

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 tccacaagtg aaactagtaa taatcacaaa ctttccctgg tatttccgag ggttccttat 120



tgatcactct taattcacta gtcaccgcat cagcatgatt tatccctcca agggaacact	180
gtgaagaaca acggtctcaa cgggttagacc cggcccgaat ccgaatagca cccccactc	240
taacccttct ccagtggtag tcttcccttc ctccttagac ttattcctca ttttatccag	300
aatgaacaaa acacacgcgc ttgacatggt ttcgaactca ctcagtacat gccgggtgga	360
ctggagtttc ttcggcttga gccggagctt ctcctagact tgatcgatga tcgctggacc	420
accgg	425

<210> 5699  
 <211> 603  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073g04a1

<400> 5699

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actcatgaaa atgaacctca acaagaaagt tctggatcgg aacttgagaa ggtttctgat	120
caggcaaaat ctacagcaga aacaaatggc agtaagcttt cagctgcggc caaacctttc	180
aatccaggaa tgttgtccat gtctcaccat ttaaattcag cttccttcac aagcatgtat	240
gatacagatg ttagtcaagg catgcacgtg gagactgtgc ttccccctgc tgttgctagg	300
gtcccttggtg ggcctagatc gcctctgtat tatagaacca actatacttt tcgcatgaaa	360
catggttcta ctaaagggtca aacctctatc agagaaagaa gtggatttgg gtctccaaga	420
ataatgaatc cacatgcgcc tgagtttggt cccagaaatg cttttcaaag agaagccaat	480
gatgccatt caaatgtttc caatgagcat aactctttgt ctgacatagg catgtcagaa	540
gaaacaagct agatgaaaat ttgtgaaatc aatggagtgc cacaaaacag tattttctgat	600
ctg	603

<210> 5700  
 <211> 426  
 <212> DNA  
 <213> Glycine max

<223> Clone ID: jC-gmf102220073g04d1

<400> 5700

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 aaaacttact atataataga gaataaaca atcccgaatg ccctaattgt atcggcaaaa 120  
 accaaagtga attgaatgac caaaaatttt aggccttgaa gttataaact attaacaatc 180  
 tgacgtccaa agcttcggcc agacaaacac tcaaatgtag agacaatttc cgttatttat 240  
 ttcataactc tattcaacga actgaagcac aaagggactg gtggttgccc aattctggga 300  
 ctccatttgg gaacttttgc ctgtctttcc ccttttggga gacaactata aacccttgac 360  
 catctccatt ctttttttca ggaacaccta attttttttg gctataacta tcacctgaaa 420  
 tgaggc 426

<210> 5701  
 <211> 521  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220073g05a1  
 <400> 5701

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 acaggctcaa gctaataagg cggatgcttc aagtggcgat accaattcct ttcattgatga 120  
 ccagagtact ttacatgttg gtccccctgat tcagaaaagt actgaagtgg agtcagttgc 180  
 agattatgaa aaacagttat cttatgaatg tgttgaaaca tttgttaaac caaataagaa 240  
 gaagaatggg gctacatatg atcagggatg gcagttggat tctgttgctc taaatgaaca 300  
 gaaggatcag tccaagaaga gagcggatag tcatcacttt gaatctaattg gaagtttgtg 360  
 tgggcaacct aatgctaaga agccaaagat aataaggcag tcaattgata atactttcga 420  
 caacattgct cctatgacta actctattcc ttccccctgct gcgtcacaaa tgagtaacat 480  
 gtcaaaccct aataatttat taagatcatt agtgggacgag a 521

<210> 5702  
 <211> 450  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmf102220073g05d1  
 <400> 5702

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gtacttcacc aaacacaaat ctaaaaactc tcaaaagtca tttcgggtctt tgacgctcac 120  
tttccgggga cgaagttggg ggcataaggcc caggcggttg tgttgacagg gtcagcatgg 180  
tgatcggtga ggctctccaa tggacccttt cggagacaa tggcctgaac aaagaagcca 240  
aacatagaga acatggccaa tegtctgttc ttgagttcct tcaccttaag ctcagcaaaa 300  
gcctctgggt catcagcaag gcccaatggg tcgaagctgc cacctgggta gattgggtca 360  
gtgacctcac cgaggggggc accagcaata cggtaacctt caacggcacc cattaggata 420  
acttgtgtgg cccaaatggc gaggatgctc 450

<210> 5703  
<211> 532  
<212> DNA  
<213> Glycine max  
<223> unsure at all n locations  
<223> Clone ID: jC-gmf102220073g06a1  
<400> 5703

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ttctctatct ctctcttcac ctctgtgtt tttttctctc tcttctctc tccctttttt 120  
caatctttca atcaccaatt ctaatcactc gtagatcctc tctgtttctc attctggatt 180  
aatttgcatg ggcaaatctc tacattatgg atgaaatggc ggattcagaa atggatcaac 240  
agatagaaga ttatcaacat tctgaaccgc atatcctttc gagaggaacc actagcatct 300  
cgcagcctaa taataaccat gcaatgggtg gagaatctga gaacacaact aatgctgatt 360  
ctcactttct gccagatgct tatgacaatg ctagggtgta tggggttcca caatataatg 420  
gtattcagcc tccacataat cttgatacgg gtgtaccagt tgcaactaac ttatattatt 480  
ctagcattaa tctccttcc agtacctgtg cttntcatcc gccttaaagt ca 532

<210> 5704  
<211> 448  
<212> DNA  
<213> Glycine max  
<223> Clone ID: jC-gmf102220073g06d1  
<400> 5704

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 tagtatgacg tctatatatg tgcaagtaca tgtacaaaat tcataagaat tctgttcata 120  
 aataaatcag gtaggaggag acacagaagt tgatttcaaa gcttgagatt tgcataatggg 180  
 gcaaacattt ttaccacca accatgttct taagcaatct gcatgatatt catgctcaca 240  
 ttgaagaact ccaatcttct cttggctctt gaattcatcc tgacatatta tacaagaaaa 300  
 tgtgccctga tcatgacaaa cttgctactc catattaata ctagtagcac ccgttaaata 360  
 agtccttggc ttcaattgag ttgtaattgt ttgctacgat aaccagtgtt tacattgcca 420  
 attctctcac cctaagcaat gagatcct 448

<210> 5705  
 <211> 565  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220073g07a1  
 <400> 5705

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 tacaagcacg ggaagaagta ctgcgacata ggatgggaat gtaagggtg gtcaatttac 180  
 tgttgtaacc tcaccattac cgattatttc cagacctacc agttcgagaa tctgttctcc 240  
 aagcggaact cgccggtggc gcacgcggtc ggattttggg actaccactc cttcatcgcc 300  
 gccgacgcgc tttttgagcc ggaagggttc ggcaccaccg ggaacaagac gatgcagatg 360  
 atggagatcg tcggcttctt cggacacgtc ggcagcaaga cctcttgagg ttatggagtg 420  
 gccactggag gacctttggc ctggggtctt tgctacaatc atgaaatgag tcctatgcag 480  
 tcatactgtg atgactactt caaactcaca tagccctgta cttctggtgc tgactactat 540  
 ggacgctgag ccattccatt ttttg 565

<210> 5706  
 <211> 292  
 <212> DNA  
 <213> Glycine max  
 <223> Clone ID: jC-gmfl02220073g07d1

<400> 5706

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atgcagcggc aaccgggggg gagaaaaaaa aaaaagaaga ccacaaaggc gccgtgaaga 120  
gagacacacc aaaaacaaat cagaaaaaag aaagaaaagg agaaaacgaa caagccgcca 180  
caagaaaaaa aaaaaggggg aaaaagaaga gccaccaga caccagagc aaaaggagg 240  
gcaaccgaa aaaacaaaaa ccccaggga aacaccatca cgaggggggg gg 292

<210> 5707

<211> 407

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073g08a1

<400> 5707

cccaccagc atatctctct atttctatth attagcacc ctcacattac cttgtgtcac 60  
caagtacttt gactccttta ccataccatt acaataatta tcaaacctaa ccagtaaaaa 120  
tggtgaccgt ggaggaaatc cgcaacgctc agcgttccca tggaccgcc accatcttgg 180  
ccttctgcac cgtcacgccg tccaactgcg tctcccaagc cgattaccct gactactact 240  
tccgcattac caacagcgaa cacatgactg atctcaaaga aaagttcaag cgcattgtgtg 300  
aaaagtccat gataaagaag cgatacatgc acctgacgga ggagtttctg aaagagaacc 360  
cgaacatgtg cgagtacatg gcgccatcgc tggacgtgag acaagac 407

<210> 5708

<211> 512

<212> DNA

<213> Glycine max

<223> Clone ID: jC-gmf102220073g08d1

<400> 5708

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acaaatattt atgcaaattc ccaaaattcg tattacagtt gctacaaata aaagaagtat 120  
aatcatcacc attgaagttt actccaacaa acccaacgta atactggcaa gtattgttgc 180  
tcgtctaaca aagcatgcaa tgggcgacca ataaattgca tataactaagt gtacagtttt 240

gcaattcttt ttacacacgg ctatctatga ggctgctaaa ctccaatctc agtaacaaaa 300  
 agaaaggccg agttgagcca acatttcttg acaaagtgca ctagccggta gccacaatct 360  
 catggatggg atcgctaaca gtttcatact cggatctgac agcaagtttc atcgcaacat 420  
 actttggacc atcaagtcca aaagacaacc gtacaagaac cttcacattt cctatgaata 480  
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 <213> Glycine max

<223> Clone ID: jC-gmfl02220073g09d1

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 tggatttgct acttgatct gtgaagcatt catacagaaa ttacatgcta cataaaccac 180  
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 gttcacacca tcaatagata aaccaactcc tcttagttca gggtcacgtg acaaccacac 300  
 tgaagcatct gttcaaatta aatggctgga tggatatata gcagatacag gcgagaccat 360  
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<210> 5710  
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<223> Clone ID: jC-gmfl02220073g10a1

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 catgggctcc ttgattgggc cacgtgatca tgatcacaga ctaccgcttg tttagcttcc 180  
 ctgtgtatca accagacacc taattcaccg aggagacata cctaggctct ttgccattca 240  
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cgatcgcgac cgtgaccgcg gtcactctat cagaaccac gttgtcaagt tcccatgtga 360  
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 <212> DNA  
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<223> Clone ID: jC-gmf102220073g10d1

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 ccaaaaacat acaaacactt ataattctgt tatgtcataa gtcggacaat tactaggtaa 180  
 caatactatt gtatttaaca ctattttgga atgaggcatg taacttattt acaatcacag 240  
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<210> 5712  
 <211> 339  
 <212> DNA  
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<223> Clone ID: jC-gmf102220073g11a1

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 ctctcctta tcatatttta tcaactctct gatgctcacc aaaaccattc ttctgtcttc 180  
 tgtattcaag ttccctggaa ttctcaatcc gggggcgtgt tcgtttctac acatgtttgg 240  
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<210> 5713  
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<212> DNA  
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 gaacccaaag cagccacaat tataatgcaa agaggaaaga aggatgttac aaacactgga 180  
 ccaaagaaat gcattcccaa cccttgttta aaaaagctat ttcagaactc aatattccag 240  
 agaatgagga ccataaaggc tgaaatataa accgatagcc catgctcgag ggggaggatc 300  
 tgcaattaga gcaaccacag aactttgcaa aggggccgct cagcatatca aggatgagag 360  
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 gcaagtcgcc gccatcctcg gcgcggatcc ctcccccttc gagacgttga tctcgcacct 180  
 catgtcctcc tccaacgagc aacgctccca cgcgagggcc ctgtttaacc tctgcaagca 240  
 aaccgatccc gatagcctct ccttgaagct cgcgcacctc ctccactcct cgccgcacga 300  
 ggaggcgct gccatgtccg ccatcctcct ccggaacag ctcacgcgcg acgactccta 360  
 cctctggccg cgctctctcc ctcacacgca gtcttccctc aaatcgctcc ttctctcctc 420  
 gattcaaaag gagaacatca aatccatctc caagaagctc tgcgacacca tctccgaact 480  
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<210> 5715  
 <211> 498  
 <212> DNA